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This book examined economic growth and manpower policy and developments in Europe. Chapter 1 presents statistical data on labor force growth, trends in unemployment, occupational structure, and technological change for 1950-65 and made projections for 1965-80. The second chapter is an analysis of the relationship of manpower policy to general economic and social policy, while Chapter 3 studied the adaptability of the labor force in terms of labor and geographic mobility. Employment goals for regional development policy, international migration (including the brain drain) and changes taking place in education and vocational orientation and training, and special categories of workers as women, the disabled, and older adults are discussed in later chapters. (PC)

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manpower aspects
of recent
economic developments
in europe



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Manpower aspects of recent economic developments in Europe

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Introduction

Recent economic developments and technological change in Europe have given rise to a number of manpower problems—problems having to do primarily with the size and rate of growth of the labour force, the objective of full employment, the distribution and redistribution of the labour force, adaptation to change, education and training.

The continent as a whole is spared the most intractable manpower problem which faces the developing continents: that of the rapid growth of the labour force outstripping the pace at which new employment opportunities arise. The age distribution of its population is fairly well balanced; the rate of its population growth is generally moderate; the inputs needed for economic growth in the form of capital and skills are mostly available in reasonable quantities. It is as well to remember these positive elements; there are very real problems, more acute in some countries than others, but, seen in a world perspective, their dimensions appear manageable.

In some of the countries, the slow rate of increase of the labour force has acted as a brake on economic growth. The growth of employment in industry and services that has occurred was made possible largely by the continued secular decline in the manpower needs of agriculture and by the movement of workers from labour surplus areas to labour shortage areas, accompanied by freer migration across some European frontiers than at any time since before July 1914. How far can these same sources of labour be counted upon in future? Less, it seems, than in the past. Some countries still have reserves for the next ten years at least, particularly in their less developed regions. In others, the only reserve is to be found among women (particularly women with family responsibilities), disabled persons, and older persons

Note. The present report is a revised version of a working document (Report II) prepared by the International Labour Office for discussion by the Second European Regional Conference of the ILO.

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who would willingly remain in the labour force if given the opportunity to do so. It would be possible to add to the labour force by expanding immigration from other continents. However, expanded immigration of this kind would entail certain economic and social costs, and it is open to question whether such a course would generally commend itself to European countries.

The main path to continued economic growth in most countries will lie through higher productivity brought about otherwise than by the movement of workers from low-productivity to high-productivity sectors—for instance through innovation and greater competition. In manpower terms this implies avoidance of waste in the use of manpower, raising of the skills of workers, and more shifts of workers from one enterprise to another, from one occupation to another and from one location to another. Workers must expect to face more changes in their careers; and children and young people not yet in employment must receive a more comprehensive general education and more broadly based vocational training that will enable them to make the adjustments likely to be necessary in the course of their working lives.

Experience suggests that fast-growing economies can accommodate many changes in employment structure without serious difficulty, and to a great extent through spontaneous adaptation of the workers concerned. However, help has to be available for workers in case of need, and the changes can take place more efficiently and more smoothly if well thought out manpower policies based on the best possible forecasting are developed by governments with the help of management and workers' organisations, and put into effect by agencies equipped to take active manpower measures.

In this more rapidly changing situation the achievement and maintenance of full, productive and freely chosen employment is not easy. Almost all European countries have set themselves the goal of achieving full employment and, in comparison both with previous periods and with other continents, they have been remarkably successful in attaining this goal. However, in some countries of southern Europe, as well as in some regions of other countries, full employment has not yet been attained. Some countries in eastern Europe are facing difficulties in transferring workers from less productive undertakings to more productive employment. In some western European countries, pursuit of this goal has brought with it problems of inflation and of balance of payments; counter-measures in the form of general fiscal and monetary restraints have led to the recurrence—which it is hoped will be only temporary—of higher levels of unemployment in some places. These countries are seeking more selective measures which differentiate between areas where a damping down of excess demand is required and those where resources are not being fully utilised.

Introduction

While the approaches to the problems are still distinct in eastern and in other parts of Europe, there is a growing area of common ground and a greater similarity in the types of action being taken.

Many countries outside eastern Europe are resorting increasingly to indicative planning, to more comprehensive and sophisticated fiscal and monetary policies, to measures for influencing the location of employment, and in some cases to increased state participation in industry. Parallel with this growing government intervention in economic processes, more and more attention is being given to manpower matters. Prior to 1955, for instance, few of these countries concerned themselves much with the planning of education and vocational training to meet manpower needs or with investment in improved manpower mobility; today these are important factors in the policies of many of them.

In the eastern European countries, the more sophisticated techniques of central planning recently introduced have permitted decentralisation of much of the earlier detailed planning; experiments have been made with the reintroduction of market techniques at the lower level of planning and with delegation of decisions to the managements of undertakings. This is leading to a greater fluidity of manpower and to measures aimed at facilitating the mobility of workers and improving the informed choice of occupation by young people.

A number of similar problems are faced by both types of country: how to utilise, in the best interest of the workers themselves and of economic growth, the services of workers becoming redundant in agriculture or because of changes in the pattern of fuel consumption or means of transport; how to make adjustments to meet the later age of entry of young people into the labour force; how to share responsibility for adjustment measures between government institutions and the enterprises concerned; and how to facilitate the full employment of special categories of workers such as women with family responsibilities, older workers and disabled workers.

Every European country is taking a considerable number of the measures described above, but often these measures are not sufficiently integrated into a coherent and comprehensive manpower policy. The data available are often insufficient for adequate manpower planning; though research on manpower subjects is being extended, still not enough is generally known about many important factors to permit measures to be planned in good time to deal with situations which are likely to arise. While governments must take the lead in formulating manpower policies and setting up the institutional machinery needed, certain responsibilities fall on managements and on the workers' organisations. Manpower planning within the industry or enterprise is becoming an increasingly important function of managements, and the workers' organisations are increasingly concerned with the questions of manpower

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adjustment, of adaptability of the labour force and of education and training. In some countries there have been trends towards developing more comprehensive manpower agencies, better equipped to assess the manpower situation, to foresee changes, to perform guidance and placement functions and to intervene rapidly in implementing corrective measures. Frequently, however, ideas regarding the administrative functions of manpower agencies need to be brought into line with the needs of today, so that these agencies can put into effect, in all parts of the country and in all sectors, manpower measures of the kinds discussed in this report.

Chapter 1 examines the statistical data concerning the growth of the labour force in a number of countries over the period 1950 to 1965, and discusses projections which have been made for the period 1965 to 1980 (projections of population and labour force for 25 European countries are reproduced in the Statistical Appendix). It examines the various factors affecting labour force growth, considers the trends in unemployment and looks at the industrial and occupational structure of employment and the effects of technological change. Chapter 2 discusses the relationship of manpower policy to general economic and social policy. Chapter 3 examines certain specific developments in connection with the adaptability of the labour force, such as those concerning the mobility of workers. Chapter 4 discusses employment aims in regional development policy and Chapter 5 developments in international migration, including the subject of the "brain drain". Chapter 6 considers changes which have taken place and are continuing to take place in the field of education, vocational orientation and vocational training of young people and the training of adult workers. Chapter 7 briefly discusses the situation of special categories of workers (women workers, older workers and disabled persons).

These chapters cover a wide range of aspects, and illustrations are given in most cases from only a small number of countries. They cannot claim to give recognition to more than a fraction of the substantial achievements in the manpower field which have been made in the last 10 to 15 years in almost all European countries.

Economic growth and structural change in employment

1

The labour force, 1950-1965

Between 1950 and 1965 the total number of workers in a large group of 17 European countries¹ increased by about 13 million or 9.3 per cent. This is equivalent to 0.6 per cent per year. About 70 per cent of this increase occurred in four of these countries—France, the Federal Republic of Germany, Turkey and the United Kingdom—which in 1950 had had only 56 per cent of the total number of workers for the group. If the remaining thirteen countries are taken together, the increase of the labour force amounted only to 3.5 million, while in two of these—Austria and Ireland—the labour force shrank by 8,000 and 134,000 workers respectively.

In a group of eastern European countries², taken together with the USSR as a whole, the total labour force increase was about 28 million or 20 per cent (equivalent to 1.2 per cent a year). However, in eastern Germany the labour force shrank by 380,000 (4.8 per cent). In Bulgaria the increase was only 2.6 per cent over the period.

In Yugoslavia the over-all increase was 7.5 per cent.

For purposes of comparison with the above figures, the growth rate of the United States labour force was 1.2 per cent a year. A study of economic growth in the United States and in eight of the European market-economy countries concluded that the limited supply of labour in the latter had restricted the growth of their national incomes.³

¹ Austria, Belgium, Denmark, Finland, France, Federal Republic of Germany, Greece, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom.

² Bulgaria, Czechoslovakia, eastern Germany, Hungary, Poland, Rumania, USSR.

³ Edward F. DENISON: *Why Growth Rates Differ* (Washington, D.C., The Brookings Institution, 1967). The eight European countries were Belgium, Denmark, France, Federal Republic of Germany, Italy, Netherlands, Norway, United Kingdom.

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Manpower from agriculture

Economic development in all the countries was significantly aided by the movement of manpower from agriculture as the result of increasing productivity in that sector. In 15 of the first group of European countries the exodus from agriculture supplied over 8 million workers for industry and services in the period from 1950 to 1960; this was 1 million more persons than the increase in the labour force during the decade. Agricultural employment grew in absolute numbers (although declining in relative importance) only in Greece and Turkey. Data since 1960 on the distribution of labour force by industrial sector are available for only a few countries; they indicate, however, a continuation of the transfer of workers from agriculture to other sectors in both the more and the less industrialised countries.

In the group of seven countries with centrally planned economies it is estimated that the exodus from agriculture between 1950 and 1965 may have amounted to over 11 million workers, thus supplying industry and services with a number of workers equivalent to 40 per cent of the numbers provided by the increase in population of working age. In three of the countries, workers released from agriculture exceeded in number the increment from population growth. Bulgaria, whose increase in population of working age over this period was slightly over 100,000, gained over 1 million workers, primarily for the workforce in industry, from the reductions in the need for farm labour.

In eastern Germany over half a million workers for industry and services were gained through shrinkage of the agricultural workforce. In Czechoslovakia the number of workers released from agriculture about equalled the rise in total labour force. In Poland, Rumania and the USSR, however, the gains to the labour force from population increase far exceeded the number of persons who left agriculture for industry and services.

Female workers

While women furnished half of the increase in the labour force in the group of market economies from 1950 to 1965, the percentage of all women participating in economic activity decreased in all but four countries. This drop was due to prolongation of school attendance and hence a fall in labour force participation of girls under 20 years of age. It also reflected the withdrawal of older women from the workforce, particularly those engaged in agriculture. The trend of labour force participation of women of 20 to 64 years of age, however, differed from country to country. In five market economies, for example, the percentage of women in their middle years in remunerative employment increased; in five others it fell; while in another three countries, it remained unchanged.

Economic growth and structural change

Female participation rates also showed a mixed pattern of behaviour in the centrally planned economies between 1950 and 1965. Information for the early part of the period is sketchy, but the percentage of women engaged in reported economic activity seems to have risen in two countries, fallen in three, and remained stable in one.

Other sources

Another source of manpower in the 1950-65 period was the pool of unemployed existing in the 1950s. In some 14 countries for which information on unemployment is available, it is estimated that nearly 2 million persons from the ranks of the jobless were put to work between 1950 and 1965.

Although most European countries have experienced shortages of labour since the Second World War, a few have had surpluses of workers. These have included Greece, Ireland, Italy, Portugal, Spain, Turkey and Yugoslavia. The main countries receiving additional workers from these countries have been the Federal Republic of Germany, France, the United Kingdom, Switzerland and Belgium. International movement of workers, although it involves serious social problems, has made a contribution to economic development in both the countries with surplus labour and those with labour shortages. This subject is further considered in Chapter 5.

The manpower outlook, 1965-1980

For a group of 17 countries the total of the estimates of growth of the labour force between 1965 and 1980 is less than that for the period 1950 to 1965, i.e. 8.6 million workers as compared with 12 million workers.¹ Only six of these countries forecast a sizable increase in the growth rate of the labour force as compared with the earlier period. In five of the countries no significant change is forecast, and in the other six countries a drop in the growth rate is anticipated. In this connection, there is reason to believe that several countries, in making forecasts of labour force growth, have underestimated the extent to which young people will delay entering employment in order to continue their education and of the rate at which older persons will withdraw from the labour force.²

Turkey is unique among the market economies in respect to anticipated increase in labour force. Due to a very sharp rise in population of working age, an increase in the labour force of 7 million persons is expected—nearly as

¹ The group corresponds to the first group of 17 countries previously listed, omitting Turkey but including Yugoslavia.

² See notes to the country labour force projections in the Statistical Appendix.

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large a gain as in all of the other European market economies combined. This gain, together with the fact that 72 per cent of the Turkish labour force is still engaged in agriculture and thus constitutes a vast reservoir of manpower available for transfer to industry and services as economic development proceeds, suggests that Turkey might well continue to be a source of manpower for other European countries in future years.¹

The estimates of growth of the labour force in the countries with centrally planned economies are at the same rate for 1965 to 1980 as in the preceding 15 years, 1.2 per cent a year or 20 per cent for the period. The increase in active population would total 33.4 million. As is shown in table I, the forecasts for individual countries show some changes of situation with Bulgaria, eastern Germany and Poland enjoying increases in rates of growth, while Hungary experiences a sharp decline.

With fewer workers available for release from agriculture and with the underemployment present in some economic sectors in the 1950s largely eliminated, it seems probable that like the market economies in northern and western Europe, the centrally planned economies, with the possible exception of Poland, will face a scarcity of the manpower needed for development.

Factors affecting labour force growth

Population growth

The principal cause of the small increase in the labour force of the market economies anticipated for future years is a continued low rate of population growth. Population in 18 of them is expected to rise by 53 million between 1965 and 1980, compared to 49 million from 1950 to 1965. If Turkey is excluded, the total population of the 17 other countries will increase by only 38 million, the same amount as in the preceding 15 years.

A further limitation on labour force increase in some of the countries is the fact that the growth of population will be largely in the non-working age groups—children under 15 years and persons of 65 and over. In the Federal Republic of Germany, for example, it is expected that the population of working age will actually decline between 1965 and 1975 and will be only 128,000 persons larger in 1980 than in 1965; the labour force will be less than half a million

¹ It is possible, however, that the growth of the Turkish labour force may not be as large as anticipated, particularly if economic development should proceed at a rapid pace. Although the participation rate of females has dropped significantly in the past ten years, the current rate of 60 per cent for women 20 to 64 years of age is exceptionally high. Since many of these women are working on farms, a decline in agricultural employment is likely to be accompanied by a decrease in the proportion of economically active females.

Economic growth and structural change

Table I. Increase in labour force in the centrally planned economies, 1950-1965 and 1965-1980

| Country | 1950 to 1965 | | 1965 to 1980 | |
|-----------------|--------------|----------|--------------|----------|
| | Thousands | Per cent | Thousands | Per cent |
| Bulgaria | 108 | 2.6 | 392 | 9.2 |
| Czechoslovakia | 773 | 13.3 | 705 | 10.7 |
| Eastern Germany | -380 | -4.8 | 373 | 5.0 |
| Hungary | 869 | 20.9 | 502 | 6.0 |
| Poland | 2 279 | 22.0 | 4 037 | 26.7 |
| Rumania | 1 917 | 20.4 | 1 715 | 15.2 |
| USSR | 22 090 | 23.3 | 25 842 | 22.1 |

Source: 1950 to 1965: ILO estimates; 1965 to 1980: ILO projections.

persons greater in 1980 than in 1965, compared with a labour force growth from 1950 to 1965 of 3.5 million.

In the eastern European centrally planned economies and the USSR, the age distribution of the population between 1965 and 1980 will be more favourable to labour force growth, with population of working age (20-64 years) increasing at a slightly faster pace than total population. However, between 1965 and 1980, eastern Germany will experience a loss of a quarter of a million persons of working age, although an improvement is expected thereafter. Hungary, Poland and Rumania, which anticipate large increases in working-age population between 1965 and 1980, will suffer reductions in population under 20 years of age during this period; hence working-age population after 1980 will be reduced. Bulgaria and Czechoslovakia, which will have very small increases in population under 20 years of age between 1965 and 1980, are in the same position. The drop in the numbers of younger persons in these countries is due to a sharp decline in fertility rates which began in the middle of the 1950s.

Education and younger workers

Another factor reducing the supply of labour (quantitatively though improving its quality) in the next 15 years will be a further drop in the proportion of young persons in the labour force at a given time.

Large decreases in the employment rates of young people of 15 to 19 years of age can be expected as compulsory schooling is increased in length and, even more important, as young people voluntarily extend their studies. A smaller, but significant drop in the labour force participation rates of men of 20 to

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24 years old will also occur, as more individuals in this age class continue studies in universities or other institutions of higher education.¹

An illustration of the anticipated effect of increased education is provided by Belgium. In 1965, 47.5 per cent of young men aged 15 to 19 were in the labour force; in 1980 only 33.5 per cent are expected to be economically active. Thus, despite an increase of 28,000 young men in the age group 15-19 years in the population, there will be 40,000 fewer working. Increased university attendance is expected to decrease the proportion of men of 20 to 24 in the labour force from 86 to 80 per cent.

Retirement of older persons

Declines are also expected in the participation rates of persons aged 65 years or older. However, the effect on total labour supply will not be large, as this age group has already become a small part of the working population in most countries. In some national projections decreases in labour force activity by men in the age group 55-64 also are indicated. Withdrawal from economic activity by older men is the result of several influences. Disappearance of small family farms has been a major factor. Other structural shifts in industries and occupations also have eliminated jobs and left men without employment at ages too advanced to permit them to acquire new skills. On the happier side, improvements in sickness and pension benefits and the general rise in incomes now permit retirement when health becomes impaired or the individual for other reasons desires to cease working.

Occasional experience in finding employment for older persons in selected occupations sometimes encourages belief that large-scale training and employment programmes would make it possible for older persons (55 years and above) to become a significant source of additional labour, but no definite evidence exists to support this belief. Although little information is available about the characteristics of older persons not in the labour force, it may be that few possess either the desire or the ability to enter the world of work; many have left the workforce because shifts in the demand for labour have rendered their skills unwanted and many have had little education, which makes the task of training for new jobs difficult.

Female workers

The contribution of women to the labour supply is not expected to change appreciably between 1965 and 1980, except in the USSR. In the market-economy countries as a group women constituted 30 per cent of the work-

¹ As noted earlier, some country projections in Appendix I seriously underestimate the growing demand for education and hence overstate participation rates in the 15 to 19 and 20 to 24-year age groups.

Economic growth and structural change

force in 1950 and also in 1965, and no change is anticipated in this ratio. In the centrally planned economies other than the Soviet Union, women made up 42 per cent of the labour force in 1965. A very small drop in this ratio is forecast by 1980. The Soviet Union, however, which had the largest female labour force component (50 per cent) of any European country in 1965, is expected to experience a large shift in its male-female ratio, with women dropping to about 46 per cent of the total labour force.

Decline or stability in the percentage of the female population engaging in economic activity is expected in all but seven European countries between 1965 and 1980. Although a slight increase in work activity by women of 25 to 64 years of age is anticipated in several countries, this will be offset by a large drop in labour force participation by girls of 15 to 19 and a small decrease in participation by young women of 20 to 24, as advantage is taken of opportunities for more education. Labour force participation by women of 65 and over is also expected to continue its decline for the same reasons which have been reducing the economic activity of older men.

To what extent women between the ages of 20 and 54 might increase their participation in economic activity and the amount of the contribution which they could make to production is an open question. The major source of such increased participation would be married women, since the economic activity rates of single women are already high in most countries. The special considerations involved in the case of women with family responsibilities are discussed in Chapter 7.

Additional manpower from agriculture

Other than population growth, the most important source of labour for the European nations in the next decade will be continuing release of manpower from agriculture. The number of workers potentially available for transfer to jobs in industry and services is directly related, of course, to the degree of industrialisation reached in each particular country. In six countries the agricultural workforce is already at a low level so that its significance as a source of labour for other sectors is extremely limited (see table II).

In a number of other countries, on the other hand, sizable proportions of the labour force are still engaged in agricultural pursuits and, even if future reductions in the proportions engaged in farming are modest, the number of workers thus made available to industry and services will be significant (see table III).

How far the reduction in the agricultural workforce may proceed in a particular country is a matter of conjecture, since the potential of modern farming techniques seems to be far from exhausted, even in the agriculturally most advanced nations. In the United Kingdom, the percentage of the active

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Table II. Agricultural labour force in six industrialised countries of Northern Europe

| Country | Year | Agricultural labour force | Percentage of total labour force |
|-----------------------|------|---------------------------|----------------------------------|
| Belgium | 1967 | 209 000 | 5.5 |
| Germany, Federal Rep. | 1967 | 2 675 000 | 10.0 |
| Netherlands | 1960 | 446 700 | 10.7 |
| Sweden | 1965 | 407 600 | 11.8 |
| Switzerland | 1960 | 280 200 | 11.2 |
| United Kingdom | 1966 | 779 800 | 3.1 |

Source: ILO: *Yearbook of Labour Statistics, 1963*.

Table III. Agricultural labour force in 15 European countries

| Country | Year | Agricultural labour force | Percentage of total labour force |
|----------------|------|---------------------------|----------------------------------|
| Austria | 1961 | 769 000 | 22.8 |
| Bulgaria | 1965 | 1 891 400 | 44.3 |
| Czechoslovakia | 1961 | 1 616 000 | 24.9 |
| Finland | 1960 | 720 800 | 35.5 |
| France | 1962 | 3 906 600 | 19.8 |
| Greece | 1961 | 1 960 400 | 53.9 |
| Hungary | 1963 | 1 566 400 | 32.7 |
| Ireland | 1966 | 343 500 | 30.8 |
| Italy | 1967 | 4 608 000 | 23.3 |
| Poland | 1960 | 6 636 600 | 47.7 |
| Portugal | 1960 | 1 447 900 | 42.3 |
| Spain | 1967 | 4 047 300 | 32.8 |
| Turkey | 1965 | 9 764 700 | 71.8 |
| Yugoslavia | 1961 | 4 748 100 | 56.9 |
| USSR | 1959 | 38 425 000 | 35.2 |

Source: ILO: *Yearbook of Labour Statistics, 1963*.

population engaged in agriculture decreased from 5.1 to 3.1 per cent between 1951 and 1966, releasing 363,000 persons for work in other industries.

The lower limit to which the agricultural workforce may fall in a particular country will be governed by a variety of factors—types of produce, topography, size of holdings, climate, etc. It may, therefore, be unrealistic to

Economic growth and structural change

envise farming populations decreasing in all countries to a level as low as the six countries first mentioned. In most countries of Europe, however, there is considerable potential for improvement in agricultural efficiency leading to a decrease in the numbers required for farming.

Decrease of non-farm self-employment

In addition to the movement of persons from agriculture, there has since 1950 been a considerable movement of persons from small shops and other family-operated enterprises to paid employment, a movement which promises to continue (see table IV).

Table IV. Self-employed and unpaid family workers as a percentage of non-farm labour force, 1950-1964

| Country | 1950 | 1962 | 1964 |
|-----------------------|------|------|------|
| Belgium | 20.9 | 17.4 | 16.5 |
| Denmark | 19.2 | 14.4 | 13.6 |
| France | 21.4 | 15.7 | 14.4 |
| Germany, Federal Rep. | 15.7 | 12.2 | 11.7 |
| Italy | 31.3 | 24.6 | 24.5 |
| Netherlands | 19.1 | 13.1 | 12.3 |
| Norway | 21.3 | 15.8 | 15.6 |
| United Kingdom | 7.7 | 6.8 | 6.7 |

Source: DENISON, *op. cit.*, p. 205.

In the same way as the movement of persons from agriculture to industry and services tends to increase national income because it transfers them from work in which the value of their output is low to activity in which product value is higher, movement of persons from non-agricultural independent work tends to have the same effect.

It has been estimated that the contribution to national income growth of the transfer of workers from agriculture and non-farm self-employment in eight countries between 1950 and 1962 ranged from 3 to 17 and from 2 to 7 per cent respectively (see table V).

Hours of work and productivity

Labour supply is, of course, a function not only of the number of persons engaging in economic activity but also of the number of hours which they work. Prediction of the future trend of hours worked, particularly over a period as

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Table V. Contribution of the movement of labour from agriculture and non-farm self-employment to paid employment to growth of national income, 1950-62

| Country | Annual growth rate of national income | Percentage contributed by reduction in: | |
|-----------------------|---------------------------------------|-----------------------------------------|--------------------------|
| | | Agricultural labour | Non-farm self-employment |
| Belgium | 3.20 | 7 | 5 |
| Denmark | 3.51 | 12 | 5 |
| France | 4.92 | 14 | 5 |
| Germany, Federal Rep. | 7.26 | 10 | 2 |
| Italy | 5.96 | 17 | 4 |
| Netherlands | 4.73 | 5 | 6 |
| Norway | 3.45 | 16 | 7 |
| United Kingdom | 2.29 | 3 | 2 |

Source: DENISON, *op. cit.* pp. 302-317.

long as 10 to 15 years, is difficult. About all that can be said is that there is likely to be some reduction in annual hours worked in most or all countries, either through shortening the work week or increasing holidays, or a combination of the two.

Shortening of hours of work does not necessarily produce, however, a corresponding fall in output, since a complex of factors are in operation at the same time, which may increase the amount of product turned out in an hour. A reduction of the work week in an enterprise from 44 to 40 hours, for example, may be accompanied by a 2 per cent increase in hourly output, so that total product for the week drops by 7 per cent, rather than 9 per cent. In addition to technological changes, work organisation and other factors responsible for the gain in hourly output, shorter hours result in less fatigue, enabling individuals to work more intensively and with fewer mistakes. They thus improve quality of output and reduce wastage. Absenteeism is also reduced. Many jobs also require an individual's presence while the establishment is open but actually do not occupy his time fully during the period. Shops may be open, for example, for nine hours a day but make nearly all their sales within a six-hour period. Or they may be open six days a week but have very few customers on, say, Mondays. In such cases, it is doubtful whether reduction of hours would reduce total sales significantly, if at all, since it is most likely that customers would adjust to the new schedule and make their purchases within the shorter period.

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Although a number of studies of the effect of reduction of hours of work on productivity have been undertaken, these are concerned mainly with manufacturing and do not agree in their findings.¹ Evidence is fairly conclusive that extending the work week beyond 48 hours does not usually raise total output, but there is little consensus as to how much productivity per hour rises with reduction of hours below that level, or as to what the lower limit is at which productivity ceases to offset further reduction of hours.

The scarcity of manpower which apparently faces European economies in future years suggests that there is only one means of expanding national product at the pace necessary to meet demands for improvement in levels of living. The largest part of the growth in the national products of the different countries since the Second World War has been the result of improving economic efficiency, and improvement in output per man-hour seems to provide the key to the future as well. If achieved adequately, rising productivity will also avoid enmeshment in the problems associated with the search for new sources of manpower, or with halting the reduction of hours of work. Improving economic efficiency should be the primary means of expanding output, for it means in effect providing mankind with more of the goods and services essential to its welfare at less cost in time and effort.²

Unemployment

A striking characteristic of the economic expansion in post-war Europe has been the low level of unemployment compared to the situation existing in the 1930s. Growth of output of goods and services has required additional workers and, in circumstances where increases of labour forces have been small, this has meant opportunity for the unemployed.

The high levels of unemployment present in some countries after the Second World War did not, of course, disappear immediately. Unemployment rates dropped gradually in the 1950s but in a few countries were still rather high at the end of the decade. Around 1960, however, joblessness declined to unprecedentedly low levels throughout most of Europe and remained low through 1966.

¹ See ILO: *Hours of Work*, International Labour Conference, 42nd Session, Geneva, 1958, Report VIII, for a review of some of the studies.

² In his study of growth rates in a number of countries, Denison concluded that, in seven countries, the hours worked by non-agricultural wage and salary earners had declined by an average of 6.6 per cent between 1950 and 1962. Assuming that the output per hour's work increased by 2.8 per cent on the average, he concluded that the over all-output per worker dropped by 3.9 per cent.

In a calculation of the relative contributions of labour, capital and productivity to the annual increase in the national income of seven countries between 1950 and 1962, he concluded that 18 per cent of this increase could be attributed to increased labour input, 18 per cent to increased capital input, and 64 per cent to increased output per unit of input (DENISON, op. cit., pp. 66 and 300-301).

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Unemployment patterns

Several patterns of unemployment experience are discernible in the post-war period. In the Federal Republic of Germany unemployment, which amounted to over 10 per cent of the labour force in 1950, moved downward steadily during the decade and by 1960 had virtually disappeared.

Unemployment in Austria and Italy moved upward from 1950 to 1953 and then dropped sharply in Austria, reaching a level of 2 to 3 per cent in the early 1960s. In Italy the drop in unemployment was interrupted in 1956, but continued thereafter, reaching 3 per cent in the 1960s.

In another group of countries, which includes Finland, France, the Netherlands, Norway, Sweden, Switzerland and the United Kingdom, unemployment has been very low—under 3 per cent and, for the most part, under 2 per cent—throughout the post-war period. Jobless rates have fluctuated in these countries with changes in general economic activity, but the swings have usually been small.

Unemployment trends in other countries do not match any of these patterns. In Belgium unemployment stayed around 11 to 12 per cent from 1950 to 1954 and then fluctuated widely from year to year until the early 1960s. From 1962 to 1966, however, Belgium enjoyed a jobless rate of under 3 per cent. Denmark entered the 1950s with a high rate of unemployment (nearly 9 per cent) which moved upward during the latter part of the decade; since 1960, however, the rate has steadily dropped and was under 3 per cent from 1964 to 1966. The rate of unemployment in Ireland has remained relatively high; it ranged between 7.5 and 9.5 per cent in the 1950s and has stayed at about 6 per cent in the 1960s.

The centrally planned economies moved rapidly after the war to eliminate unemployment completely in accordance with the socialist objective of guaranteeing work to all job seekers. Differences in institutional arrangements and statistical reporting with respect to persons changing jobs make it impossible to compare accurately temporary lack of work between jobs in the market economies ("frictional" unemployment, usually included in total unemployment figures) and in the centrally planned economies (included in the Soviet Union in the concept of "labour turnover").

Yugoslavia in the early post-war years undertook to guarantee work to all persons; this policy was changed under the system of self-management of enterprises adopted in 1950, when the latter were no longer required to provide employment for surplus workers. From 1953 unemployment increased from 82,000 to 268,000 in 1967. Half of these unemployed, however, were rural

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landholders seeking a change of occupation, and most of the remainder represent frictionally unemployed.¹

Recent unemployment

In 1965 the European market economies entered a period of recession. Like previous post-war down-turns in economic activity², it did not affect all economies to the same degree and was scarcely a recession in the old-fashioned meaning of the term. In five countries there was a short period of actual decline in industrial production, but in the others the "recession" was in the form of a slowing down of the rate of economic growth, rather than an actual drop in output.³

The impact of the slowdown in growth did not make itself felt in unemployment until late 1966 and early 1967, when jobless rates rose in virtually all countries. Except in France and Great Britain, unemployment in 1967 was at a lower level, however, than in 1958-59 (see table VI).

What explains this appearance of a rise in unemployment in a period of economic growth and labour scarcity? The answer seems to be that economic growth must be a continuing process if large-scale unemployment is to be avoided. Economic growth is based on three elements: (1) labour inputs, (2) capital inputs, and (3) productivity increase. So long as demand for goods and services rises at a sufficient pace, labour and capital will be fully employed. If growth of demand slackens, however, the need for labour declines, for productivity gains are not reversible. Techniques already adopted to obtain higher output per worker will not be replaced in favour of less efficient methods. Any reduction in output must be made through decreased use of labour and capital equipment.

Thus, even in an expanding economy, there can be a rise in unemployment if demand for goods and services fails to grow at a rate sufficient to absorb new additions to the labour force. Labour scarcity can limit the rate of growth. At the same time, a high rate of growth assures full employment. Unemployment enters the picture when the rate of growth, for some reason, falls so low as to cause a surplus of labour.⁴ It is thus clear that the primary task of economic policy is to ensure maintenance of an adequate and steady rate of economic growth.⁵

¹ See Strelan OBRADOVIC: "Employment Trends and Problems in Yugoslavia", in *International Labour Review* (Geneva, ILO), Vol. 95, No. 6, June 1967, pp. 553-569.

² Earlier recessions occurred in 1952-54 and 1958-59.

³ Economic Commission for Europe: *Economic Survey of Europe in 1967*, Ch. I.

⁴ For a brief discussion of reasons for the decline in economic growth since 1964, see ILO: Second European Regional Conference, *Report of the Director General*, Ch. I. See also Economic Commission for Europe: *Economic Survey of Europe in 1967*, Ch. I.

⁵ As the preliminary figures for the second quarter of 1968 show (table VI), unemployment decreased, indicating a recovery from the recent recession.

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In the meantime, it is inevitable that there should be concern at the re-emergence of unemployment rates considerably higher than those of the period 1960-66. This concern is more marked in France and the United Kingdom than elsewhere, but is alive also among their neighbours and economic partners.

Industrial structure of employment

The distribution of employment by industry is undergoing change in every country. Structural change is an integral part of the process of economic growth; indeed, absence of such alteration in the organisation of economic activity is evidence that development is not taking place. Because economic growth has been rapid in post-war Europe, structural change in the allocation of manpower among industries has been significant. Table VII provides a

Table VI. General level of unemployment in some European countries, 1950-1968¹

| Country | Code ² | Annual averages | | | | | |
|---------------------------|----------------------|-----------------|---------|---------|---------|---------|---------|
| | | 1950-54 | 1955-59 | 1960-64 | 1965 | 1966 | 1967 |
| Austria (per cent) | V(B) | 7.3 | 5.1 | 2.9 | 2.7 | 2.5 | 2.7 |
| Belgium (per cent) | II/V(B) ³ | 11.0 | 6.2 | 3.6 | 2.4 | 2.7 | 3.7 |
| Denmark (per cent) | IV | 9.6 | 9.3 | 3.7 | 2.4 | 2.6 | 3.2 |
| Finland (per cent) | I | — | — | 1.4 | 1.4 | 1.6 | 2.8 |
| France | V(B) | 153 617 | 116 483 | 107 560 | 141 300 | 147 100 | 192 900 |
| Germany F.R. (per cent) | V(B) | 8.4 | 3.7 | 0.8 | 0.6 | 0.7 | 2.1 |
| Greece | V(B) | — | — | 74 300 | 64 300 | 64 800 | 83 500 |
| Ireland (per cent) | II | 8.3 | 8.1 | 6.0 | 5.6 | 6.1 | 6.7 |
| Italy (per cent) | V(B)/I ⁴ | 9.3 | 8.0 | 3.2 | 3.6 | 3.9 | 3.5 |
| Netherlands (per cent) | V(B) | 2.5 | 1.5 | 0.9 | 0.9 | 1.1 | 2.2 |
| Norway (per cent) | V(B) | 1.2 | 1.7 | 1.5 | 1.2 | 1.1 | 0.8 |
| Spain | V(B) | 129 349 | 93 999 | 113 320 | 147 100 | 123 200 | 146 300 |
| Sweden (per cent) | V(B) | 2.3 | 2.1 | 1.3 | 1.1 | 1.4 | 1.7 |
| Switzerland | V(B) | 5 607 | 2 720 | 720 | 300 | 300 | 260 |
| United Kingdom (per cent) | V(B) | 1.5 | 1.6 | 1.9 | 1.5 | 1.5 | 2.3 |
| Yugoslavia (per cent) | V(B) | — | 4.3 | 5.9 | 6.1 | 6.7 | 7.0 |

Source: ILO: *Year Book of Labour Statistics, 1968: Bulletin of Labour Statistics* (1968 issues).

¹ For various reasons the definitions of "unemployed" used in national statistical series often differ from the recommended international standard definition, the series in this table should not be used to make comparisons between countries relative to levels of unemployment. See ILO: *Year Book of Labour Statistics, 1968*, Ch. III. ² Codes: I—labour force sample survey; II—compulsory unemployment insurance statistics; III—unemployment relief statistics; IV—statistics of trade union benefit funds; V—unemployment office statistics. (A) applicants for work, (B) unemployed persons registered. ³ Series changed from Code II to Code V(B) in 1957. ⁴ Series changed from Code V(B) to Code I in 1958.

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breakdown by major economic branch of the distribution of employment at various dates in individual countries.

All the countries for which comparative data are available follow, it will be observed, roughly the same pattern: a major decline in the proportion of workers engaged in agriculture and an increase in the proportion employed in the various branches of industry and services.

These trends, it can be anticipated with confidence, will continue in the future. The interesting, but difficult to answer, questions are "at what pace and how far?"

The rate of change in industrial structure is closely related to the rate of economic growth. The latter, in turn, is in considerable part a function of the present stage of economic development. It is to be expected, therefore, that the highest rates of growth and consequently the greatest pace of change in employment structure will occur in the less developed economies. Likewise,

| Quarterly averages | | | | | | | | | | | |
|--------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|---------|--|
| 1966 | | | | 1967 | | | | 1968 | | | |
| I | II | III | IV | I | II | III | IV | I | II | | |
| 4.2 | 1.8 | 1.4 | 2.7 | 4.2 | 1.9 | 1.5 | 3.1 | 5.1 | 2.1 | | |
| 2.9 | 2.5 | 2.4 | 2.7 | 3.7 | 3.6 | 3.4 | 4.2 | 4.9 | 4.4 | | |
| 4.9 | 1.0 | 0.7 | 3.7 | 3.5 | 1.3 | 1.6 | 6.6 | 7.0 | 3.3 | | |
| 2.3 | 1.4 | 1.0 | 1.4 | 2.9 | 2.2 | 2.4 | 3.9 | 5.4 | 3.9 | | |
| 164 744 | 134 098 | 127 602 | 164 280 | 192 430 | 178 635 | 178 659 | 234 409 | 269 835 | 246 780* | | |
| 0.6 ^s | 0.4 ^s | 0.5 ^s | 1.6 ^s | 2.6 ^s | 1.8 ^s | 1.6 ^s | 2.4 ^s | 2.2 ^s | 1.1 ^s | | |
| 77 338 | 62 464 | 65 626 | 65 626 | 91 057 | 83 511 | 76 440 | 83 017 | 97 842 | 75 767 | | |
| 7.0 | 6.2 | 5.2 | 6.0 | 7.7 | 6.5 | 6.0 | 6.6 | 7.7 | 6.8 | | |
| 5.2 ^e | 3.4 ^e | 3.6 ^e | 3.5 ^e | 4.4 ^e | 3.2 ^e | 2.9 ^e | 3.4 ^e | 4.1 ^e | 3.2 ^e | | |
| 1.3 | 0.7 | 0.9 | 1.6 | 2.6 | 1.9 | 1.9 | 2.5 | 2.9 | 1.8 | | |
| 2.2 | 0.7 | 0.4 | 1.0 | 1.6 | 0.7 | 0.5 | 1.3 | 2.1 | 1.1 | | |
| 149 500 | 113 800 | 106 400 | 102 300 | 140 300 | 133 000 | 138 700 | 173 400 | 211 900 | — | | |
| 2.4 | 1.2 | 0.7 | 1.3 | 2.4 | 1.6 | 1.1 | 1.8 | 2.9 | 1.7 | | |
| 670 | 128 | 119 | 267 | 407 | 156 | 122 | 338 | 679 | 168 | | |
| 1.5 | 1.3 | 1.4 | 1.9 | 2.4 | 2.2 | 2.3 | 2.5 | 2.7 | 2.4 | | |
| 7.9 | 6.7 | 5.7 | 6.5 | 7.9 | 6.9 | 6.2 | 7.2 | 8.7 | 8.0 | | |
| | | | | | | | | | | (prov.) | |

^s Data refer to third month of the quarter. ^e Data refer to first month of the quarter.

* April and June only (France II — 1968)

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Table VII. Industrial distribution of the labour force in selected European countries around 1950 and 1960 (per cent)

| Country | Year | Agriculture, forestry, hunting, fishing | Mining, quarrying | Manufacturing | Construction | Electricity, gas, water, etc. | Commerce | Transport, storage, communications | Services |
|---------------------|-------------------|--------------------------------------------|-------------------|-------------------|--------------|----------------------------------|-------------------|---------------------------------------|----------|
| Bulgaria | 1956 | 64.1 | 15.9 ¹ | 2.8 | — | 3.4 | 3.2 | 9.8 | |
| | 1965 ² | 44.4 | 27.3 | 6.2 | — | 4.7 | 4.5 | 12.7 | |
| Finland | 1950 | 46.0 | 0.3 | 20.7 | 6.2 | 0.5 | 8.1 | 5.4 | 11.4 |
| | 1960 | 35.5 | 0.3 | 21.6 | 8.7 | 0.9 | 11.6 | 6.3 | 14.8 |
| France | 1954 | 26.7 | 2.1 | 25.3 | 7.0 | 0.7 | 13.5 | 5.2 | 16.6 |
| | 1962 | 19.8 | 1.6 | 26.9 | 8.2 | 0.9 | 13.2 | 5.4 | 20.1 |
| Germany (Fed. Rep.) | 1959 ³ | 22.1 | 3.3 | 30.8 | 8.4 | 0.7 | 9.9 | 5.3 | 17.4 |
| | 1961 ³ | 13.4 | 2.8 | 36.4 | 8.6 | 0.8 | 13.4 | 5.6 | 18.9 |
| Hungary | 1949 | 52.8 | 1.8 | 19.1 ⁴ | 2.3 | — | 4.7 | 4.0 | 8.8 |
| | 1960 | 38.4 | 3.2 | 25.6 ⁴ | 6.2 | — | 6.7 | 6.1 | 10.4 |
| Italy | 1951 | 40.0 | 22.8 | 7.1 | 0.5 | 26.5 ⁵ | 3.8 | — | |
| | 1961 | 28.2 | 0.7 | 26.5 | 11.6 | 0.6 | 24.7 ⁵ | 4.3 | — |
| Netherlands | 1947 | 19.3 | 1.3 | 24.0 | — | 1.0 | 14.1 | 6.2 | 20.4 |
| | 1960 | 10.7 | 1.5 | 29.9 | 4.7 | 1.1 | 16.2 | 6.9 | 23.5 |
| Poland | 1950 | 57.1 ⁶ | 18.8 ⁷ | 4.2 | — | 5.2 | 3.8 | 10.2 | |
| | 1960 | 47.7 ⁶ | 23.3 ⁷ | 5.7 | — | 5.8 | 4.8 | 12.7 | |
| Spain | 1950 | 48.9 | 1.6 | 17.6 | 5.3 | 0.5 | 6.5 | 3.9 | 14.1 |
| | 1960 | 41.3 | 1.7 | 21.9 | 7.1 | 0.7 | 7.8 | 4.6 | 13.9 |
| Sweden | 1950 | 29.3 | 0.5 | 31.6 | 7.9 | 0.9 | 13.0 | 8.1 | 17.0 |
| | 1960 | 13.8 | 0.7 | 34.2 | 9.1 | 1.1 | 13.5 | 7.5 | 19.8 |
| Turkey | 1955 | 77.3 | 0.5 | 6.0 | 1.6 | 0.1 | 2.8 | 1.6 | 4.1 |
| | 1965 | 71.8 | 0.6 | 6.9 | 2.6 | 0.2 | 3.0 | 2.1 | 5.9 |
| United Kingdom | 1951 | 5.3 | 3.7 | 37.3 | 6.3 | 1.6 | 14.0 | 7.6 | 23.6 |
| | 1961 | 3.8 | 2.9 | 34.8 | 6.7 | 1.6 | 15.6 | 6.9 | 24.4 |
| Yugoslavia | 1953 | 66.8 | 1.4 | 10.7 | 3.1 | — | 3.1 | 2.1 | 7.0 |
| | 1961 | 56.9 | 1.7 | 16.5 | 3.8 | — | 3.2 | 3.0 | 8.7 |

Source: ILO: *Year Book of Labour Statistics*, various dates.

Note: Activities not adequately described are excluded, except in the 1960 figure for "services" in Poland, which includes them.

¹ Includes electricity. ² Data based on a 3 per cent sample tabulation of the 1965 population census.

³ Data include Saar and West Berlin. ⁴ Includes electricity, gas, water, etc. ⁵ Includes services. ⁶ Excludes sea fishing. ⁷ Includes electricity and gas, and sea fishing.

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the greatest departure from present employment structure will be encountered in 1980 in today's least developed economies. However, if past trends are a reliable guide to the future, significant shifts in the industrial structure of employment will also occur in the more highly industrialised economies.

Predictions of future patterns of employment are infrequent because of the speculative character of the assumptions necessarily involved, particularly about rates of productivity increase by sector. Since considerable interest attaches, however, to estimates of the possible future pattern of employment, examples of forecasts of the structure of employment by division of industry are presented in tables VIII to XI for three of the centrally planned economies and three southern European market economies.

In all cases it is clear that release of workers from the agricultural sector is expected to provide a significant share of the manpower needed in other branches of the economy. This is illustrated in table XII, which shows for three countries the relative contributions of increases in the labour force and of the release of manpower from agriculture to the labour supply available for the expansion of industry and services. Three different patterns may be noted. Czechoslovakia, which relied on the release of workers from agriculture for over two-thirds of its additional manpower for industry and services in the

Table VIII. Greece: changes in employment by sector of economic activity, 1961-1979

| Sector | Volume (thousands) | | Distribution (per cent) | |
|-------------------------------------|-----------------------|-------|----------------------------|-------|
| | 1961 | 1979 | 1961 | 1979 |
| Agriculture | 1 960 | 1 300 | 53.8 | 34.2 |
| Industry | 700 | 1 015 | 19.2 | 26.7 |
| Mining | 22 | 38 | 0.6 | 1.0 |
| Manufacturing | 489 | 760 | 13.4 | 20.0 |
| Public utilities | 20 | 37 | 0.5 | 1.0 |
| Construction | 169 | 180 | 4.6 | 4.7 |
| Services | 859 | 1 485 | 23.6 | 39.1 |
| Commerce | 266 | 460 | 7.3 | 12.1 |
| Transport and communications | 154 | 330 | 4.2 | 8.7 |
| Other services | 439 | 695 | 12.1 | 18.3 |
| Activities not adequately described | 121 | — | 3.3 | — |
| Total | 3 640 | 3 800 | 100.0 | 100.0 |

Sources: ILO: *Yearbook of Labour Statistics, 1957*; OECD: *The Mediterranean Regional Project: Greece* (Paris, 1965), table 46.

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1950s, expects to obtain only one-third from this source between 1960 and 1980. This reflects the approaching exhaustion of this source, which constituted 38 per cent of the labour force in 1950 but only 26 per cent in 1960, with a further decline to 14 per cent anticipated by 1980. Hungary, on the other hand, foresees a sharp upturn in the supply of labour released from agriculture and a diminution of the increment from population growth. Poland looks forward to steep increases in its labour force for industry and services, both from population gain and reduction in number of farm workers.

Poland is the only country among the six which expects growth of employment in industry to match that in services. In other countries, except Spain where the difference is small, services are expected to gain in numbers of workers at a considerably faster rate than industry (see table XIII). The greater rate of growth of employment in the service sector results from the limited capacity of industry to absorb manpower, the large increase in demand for services in the more mature economy, and the slower rate of increase in man-hour output in services.

Table IX. Italy: changes in employment by sector of economic activity, 1961-1975

| Sector and branch | North | | | South | | | Whole country | | |
|------------------------------|--------------------------|--------------------------|------------------------------------|--------------------------|--------------------------|------------------------------------|--------------------------|--------------------------|------------------------------------|
| | 1961 (thous- ands) | 1975 (thous- ands) | Average annual growth (%) | 1961 (thous- ands) | 1975 (thous- ands) | Average annual growth (%) | 1961 (thous- ands) | 1975 (thous- ands) | Average annual growth (%) |
| Agriculture | 3 050 | 2 100 | -2.8 | 2 750 | 1 900 | -2.7 | 5 800 | 4 000 | -2.7 |
| Industry | 5 750 | 6 700 | 1.1 | 1 550 | 2 500 | 3.2 | 7 300 | 9 200 | 1.7 |
| Mining and quarrying | 90 | 100 | 0.8 | 60 | 80 | 2.1 | 150 | 180 | 1.3 |
| Manufactures | 4 150 | 4 830 | 1.1 | 960 | 1 590 | 3.4 | 5 110 | 6 420 | 1.6 |
| Building | 1 430 | 1 680 | 1.2 | 500 | 780 | 3.2 | 1 930 | 2 460 | 1.7 |
| Electricity, gas and water | 80 | 90 | 0.8 | 30 | 50 | 3.7 | 110 | 140 | 1.7 |
| Services | 4 450 | 5 800 | 1.9 | 1 850 | 2 700 | 2.9 | 6 300 | 8 500 | 2.2 |
| Transport and communications | 900 | 1 040 | 1.0 | 250 | 460 | 4.5 | 1 150 | 1 500 | 1.9 |
| Commerce | 1 760 | 2 150 | 1.4 | 630 | 850 | 2.5 | 2 360 | 3 000 | 1.7 |
| Credit and insurance | 130 | 210 | 3.5 | 60 | 90 | 2.9 | 190 | 300 | 3.3 |
| Miscellaneous | 540 | 870 | 3.5 | 360 | 530 | 2.8 | 900 | 1 400 | 3.2 |
| Public administration | 1 120 | 1 530 | 2.3 | 580 | 770 | 2.0 | 1 700 | 2 300 | 2.2 |
| Total | 13 250 | 14 600 | 0.7 | 6 150 | 7 100 | 1.0 | 19 400 | 21 700 | 0.8 |

Source: OECD: *The Mediterranean Regional Project: Italy* (Paris, 1965), table 22.

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Table X. Spain: changes in employment by sector of economic activity, 1960-1975

| Sector and branch | Volume (thousand) | | Distribution (per cent) | | Average annual growth (per cent) |
|------------------------------|----------------------|----------|----------------------------|-------|-------------------------------------------|
| | 1960 | 1975 | 1960 | 1975 | |
| Agriculture | 4 803.3 | 3 713.4 | 41.3 | 27.4 | -1.7 |
| Industry | 3 652.4 | 5 077.8 | 31.4 | 37.4 | 2.3 |
| Mining | 203.5 | 220.3 | 1.7 | 1.6 | 0.5 |
| Manufacturing | 2 545.9 | 3 489.4 | 21.9 | 25.7 | 2.1 |
| Construction | 822.1 | 1 244.9 | 7.1 | 9.2 | 2.8 |
| Electricity, gas and water | 80.8 | 123.0 | 0.7 | 0.9 | 2.8 |
| Services | 3 178.5 | 4 773.2 | 27.3 | 35.2 | 2.7 |
| Trade | 820.1 | 1 294.5 | 7.0 | 9.5 | 3.1 |
| Banking | 125.1 | 208.0 | 1.1 | 1.5 | 3.4 |
| Transport and communications | 536.5 | 809.0 | 4.6 | 6.0 | 2.8 |
| Other services | 1 696.7 | 2 461.6 | 14.6 | 18.1 | 2.5 |
| Total | 11 634.2 | 13 564.3 | 100.0 | 100.0 | 1.0 |

Note: Total labour force for 1975 differs from ILO projection of 12,467,000 in Statistical Appendix because of different assumptions regarding labour force participation rates.

Source: OECD: *The Mediterranean Regional Project: Spain* (Paris, 1965), table 40.

Occupational structure of employment

At the same time as economic development alters the distribution of employment among industries, it also modifies the occupational pattern. This modification takes two forms, qualitative and quantitative. On the qualitative side, there is transformation in the content of jobs—an increase or a decrease in the amount of training and skill required, or simply a change in the nature of the work. In some instances entirely new types of jobs appear, involving skills heretofore unknown. It is, however, the quantitative aspect of occupational change—the alteration in numbers of workers needed in various occupations—which is far more important. The number of new types of occupations is limited, and surprisingly few older types of jobs completely disappear.

Sources of change

Occupational change stems from two sources. In part, it is the consequence of modification of the industrial structure. As agriculture and coal mining, for example, decline in importance as sources of employment, there

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Table XI. Evolution and projection of the economically active population by broad sectors in three centrally planned economies

| Country | Total labour force | Volume (thousands) | | | Distribution (per cent) | | |
|-----------------------|--------------------|--------------------|----------|----------|-------------------------|----------|----------|
| | | Agriculture | Industry | Services | Agriculture | Industry | Services |
| Czechoslovakia | | | | | | | |
| 1950 | 5 779 | 2 206 | 2 143 | 1 430 | 38 | 37 | 25 |
| 1960 | 6 059 | 1 570 | 2 787 | 1 702 | 26 | 46 | 28 |
| 1980 | 7 040 | 1 018 | 3 204 | 2 818 | 14 | 46 | 40 |
| Hungary | | | | | | | |
| 1949 | 3 911 | 2 138 | 820 | 953 | 55 | 21 | 24 |
| 1960 | 4 701 | 1 965 | 1 664 | 1 172 | 40 | 35 | 25 |
| 1980 | 5 339 | 900 | 2 215 | 2 224 | 17 | 41 | 42 |
| Poland | | | | | | | |
| 1950 | 12 314 | 7 090 | 2 847 | 2 377 | 58 | 23 | 19 |
| 1960 | 13 690 | 6 541 | 3 836 | 3 313 | 48 | 28 | 24 |
| 1985 | 18 900 | 4 720 | 7 530 | 6 650 | 25 | 40 | 35 |

Source: ILO: *Yearbook of Labour Statistics, 1967*; *International Labour Review, 1957*, Nos. 1/2, pp. 33, 111 and 112; János Tisza: "Planning the Labour Force in Hungary", in *Eastern European Economics*, 1966, Vol. IV, Nos. 2-3, p. 109; Planning Commission of Poland: *Wstępny szary rozwoju społeczeństwogospodarczego Polski latach 1966-1985*.

are fewer jobs for farmers and miners. At the same time, expansion of the aerospace and automobile industries creates demand for aircraft mechanics and service-station attendants. In part, occupational change also results from technological advances within industries. In warehousing, for example, the fork-lift truck and conveyer belts have both reduced the number of stock-workers employed and altered the nature of their work. In blast furnaces automatic charging equipment has displaced workers from a variety of jobs: charger, dumper, hoist operator, etc. Simultaneously, new jobs have been introduced: signaller, gas controller, charge despatcher, etc.

Projections of occupational structure

To prepare for the future, and in particular to plan the training of people for tomorrow's occupations, it is desirable to have some idea of the occupational structure which will best correspond to the future needs of the economy. This is particularly important in the case of occupations for which lengthy training is needed. Projections of occupational structure are carried out by different methods and with varying degrees of predictive value.¹

¹ See R. G. HOLLISTER: "The Economics of Manpower Forecasting", in *International Labour Review* (Geneva, ILO), Vol. LXXIX, No. 4, Apr. 1964.

Table XII. Long-term balance of increase in manpower supply and growth of employment by broad sectors

| Country and period | A. Increment in manpower supply (thousands) | | | Structure | | B. Increase in employment (thousands) | | | Structure | |
|-----------------------|---------------------------------------------|-------------------------------------------------------|----------------------------------------------------------------------|-------------------------------|-------------------------------|---------------------------------------|---------------------------|---------------------------|-------------------------------|-------------------------------|
| | Total (ΔL) | Increase due to demographic factors (ΔL_1)* | Increase due to structural changes in agriculture (ΔL_2)** | $\frac{\Delta L_1}{\Delta L}$ | $\frac{\Delta L_2}{\Delta L}$ | Total (ΔE) | Industry (ΔE_1) | Services (ΔE_2) | $\frac{\Delta E_1}{\Delta E}$ | $\frac{\Delta E_2}{\Delta E}$ |
| Czechoslovakia | | | | | | | | | | |
| 1950-60 | 916 | 280 | 636 | 0.31 | 0.69 | 916 | 641 | 272 | 0.70 | 0.30 |
| 1960-80 | 1 533 | 981 | 555 | 0.64 | 0.36 | 1 533 | 417 | 1 116 | 0.27 | 0.73 |
| Hungary | | | | | | | | | | |
| 1949-60 | 1 063 | 790 | 273 | 0.74 | 0.26 | 1 063 | 844 | 219 | 0.79 | 0.21 |
| 1960-80 | 1 603 | 638 | 965 | 0.40 | 0.60 | 1 603 | 551 | 1 052 | 0.34 | 0.66 |
| Poland | | | | | | | | | | |
| 1950-60 | 1 925 | 1 376 | 549 | 0.71 | 0.29 | 1 925 | 989 | 936 | 0.51 | 0.49 |
| 1960-85 | 7 031 | 5 210 | 1 821 | 0.74 | 0.26 | 7 031 | 3 694 | 3 337 | 0.53 | 0.47 |

Source: table XI.

* Including changes in activity rates. ** i.e. due to decrease in absolute level of employment in agriculture.

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Table XIII. Average annual projected rates of growth of employment in industry and services

| Country | Period | Industry | Services |
|----------------|---------|----------|----------|
| Czechoslovakia | 1960-80 | 0.9 | 2.5 |
| Greece | 1961-79 | 2.1 | 3.1 |
| Hungary | 1960-80 | 1.4 | 3.3 |
| Italy | 1961-75 | 1.1 | 1.9 |
| Poland | 1960-85 | 3.5 | 3.5 |
| Spain | 1960-75 | 2.3 | 2.7 |

Sources: tables VIII-XI.

Countries where attempts have been made to forecast the future occupational pattern include the centrally planned economies, France¹, the Netherlands, Sweden and the United Kingdom², and certain of the Mediterranean countries as part of the OECD Mediterranean Regional Projects³. Such attempts have, however, mostly given little more than general indications of trends in the growth or decline of certain broad groupings such as "professional", "clerical", "skilled manual workers", "unskilled manual workers", "service workers".

There are serious inherent difficulties in forecasting changes in occupational structure in greater detail. To begin with, an over-all estimate for the economy as a whole is not practicable; such an estimate has to be built up from the aggregation of estimates for individual industries, taking into account projections of the future industrial structure. Within each industry, assumptions have to be made regarding trends in labour productivity (based in some cases on international comparisons and in others on the hypothesis that the less productive establishments in the industry will gradually progress to the level of the most productive establishments in that industry).

Further research and experimentation on improved methods is going on, but, so far, forecasts of occupational structure have been of only limited use

¹ See C. VIMONT, P. d'HUGUES, M. PRESLIER: "La Prévision de l'Emploi dans le cadre du 5^e Plan en France", in *Population* (Paris), 1966.

² See Ministry of Labour: Manpower Studies No. 1, *The Pattern of the Future* (HMSO, London, 1964).

³ OECD: *The Mediterranean Regional Project: Forecasting Educational Needs for Economic and Social Development* (OECD, Paris, 1962) and *A Technical Evaluation of the First Stage of the Mediterranean Regional Project* (Paris, 1967).

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for the principal purpose to which they could be applied, namely the forward planning of vocational training.

Technological change and employment

“Technological change” is a term often used in an extremely broad sense to include any modification of methods of producing goods and services which results in a variation in the quantity or quality of product per unit of input of labour and capital. So used, it may embrace new tools or machinery, new techniques of utilising existing equipment, new materials, an alteration in product design. Its effect in the area of manpower is usually to reduce the amount of labour necessary to produce a given level of output. By thus making economies in the use of productive resources, technological change increases output per head and enables higher levels of consumption per person.

Despite its socially desirable results, technological change raises problems for workers and unions, who fear that employees displaced by technological advances may bear the brunt of the process through depreciation of their skills or loss of their jobs.

So far, in the process of economic development technological advance has not caused mass unemployment. Total employment has steadily increased and, particularly in Europe in recent years, has been at or near “full employment” levels. The heavy unemployment of the 1930s was caused by lack of economic growth, due to faulty fiscal and monetary policies, high trade barriers, etc. During the pre-war period technological progress in Europe was modest compared to the post-war era. At the industry level also, studies reveal little relationship between changes in productivity and employment. Industries with high rates of productivity increase often show high rates of employment increase. Employment trends by industry are much more closely associated with changes in the level of demand for the product of the industry than with changes in output per man-hour.¹

As for the situation of the individual worker displaced by technological change, experience has demonstrated that it is possible—through proper planning at the enterprise, industry and national levels, through retraining programmes, financial assistance, and measures discussed elsewhere in this report—to provide proper protection so that the burden of change is shared and the cost to individuals minimised.

Automation

In recent years, however, concern over the effect of technological change on job opportunities has been increased by the spread of automation. Fears

¹ See Swedish Confederation of Trade Unions (S. D. ANDERMAN, ed.): *Trade Unions and Technological Change* (London, Allen & Unwin, 1967), Ch. 6.

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have been expressed that the productive potential of automation is so enormous that it will result in factories and offices in which all operations are carried out by machines requiring a minimum of human intervention.

To assess the significance of automation, it is necessary to consider what is meant by the term. Mechanisation of work is no recent development but dates back to the "industrial revolution" in England in the eighteenth century and earlier. Until recently, what machines replaced or supplemented, however, was physical effort by humans. The recent development in machinery, to which the name "automation" has been applied, consists of the replacement of human mental effort in the production process. Machines have been developed which embody automatic selection and correction devices so that assigned functions are carried out without the need for human control or intervention. In practice, automated apparatus can be divided roughly into two systems: "programme control" in which the apparatus carries out a set of instructions and directs a sequence of actions, and "feed-back control" where the machine regulates and corrects its own operations.

At the same time that information-using machinery was being developed in the post-war period, conventional mechanisation was making huge strides, particularly in the United States automobile industry, where transfer machines were developed to replace human activity in loading and unloading material from a machine and transferring it to the next stage in the production sequence. This type of process, too, has been referred to as "automation" and is probably largely responsible for the erroneous use of the term to embrace any type of advanced technological change.

It is essential to distinguish clearly between mechanisation and automation in order to deflate the fears which confusion of the two developments may arouse. There is no reason at present to expect that the process of mechanisation will proceed at a significantly faster pace in the future than it has in the past. Detroit transfer machines notwithstanding, there is little evidence as yet of a revolutionary speed-up of mechanisation and consequent displacement of manual workers.

While automation has had significant application in a few manufacturing industries and in transportation and communications, its ultimate effect on employment has probably been slight. In manufacturing its principal application has been in industries such as chemicals manufacturing and petroleum refining, in which operations already were largely flow-processes and labour ratios were low.

The area in which automation, in the form of the computer, seems likely to have its most profound effect is office work, particularly in banking, insurance and similar operations involving routine transactions and record keeping.¹

¹ See ILO: Labour and Automation, Bulletin No. 5, *Automation and Non-Manual Workers* (Geneva, 1967).

Over-all effect of technological change on employment

Information on the over-all impact of recent technological innovations on employment is unavailable. It is not possible to say, for example, how many new jobs have been created by advanced mechanisation and automation or how many old jobs have been eliminated. It is probable, as suggested above, that the net impact has been small. Nonetheless, it would be desirable to know. It is likely, for the most part, that introduction of advanced mechanisation or automation in an enterprise only infrequently reduces the current level of employment. Its effect, rather, is on the future or potential level, making it possible to handle a larger volume of work without increasing the labour force to the same extent as would have been necessary otherwise. A survey covering two-thirds of the computer installations in Great Britain in 1964 found that, over the period analysed, the average undertaking installing automated office equipment experienced an increase of 8 per cent in office jobs compared to the 13 per cent rise which would have occurred had the equipment not been installed. It is estimated that introduction of automated office equipment may reduce the demand for office workers in the period 1964-70 by not more than 20 per cent¹ as compared with the demand that there would have been without automation.

In most cases of the introduction of automated equipment which have been examined, there has been little or no loss of work by employees already in the firms concerned. Where reduction of the workforce has been necessary, it has been accomplished through normal attrition and decreasing new hiring, while employees directly affected by automation have been transferred to other work.² What is not known, however, is whether employees in other firms which did not install automated equipment suffered loss of employment because their firms could not compete successfully against the automated firms.

Although advanced mechanisation or automation may be introduced into an enterprise in order to reduce staff, this is not always or necessarily the case. The main purpose may be an expansion of output or improvement of service to customers not possible with older methods of production. Gains in product quality may also be an objective, since the new equipment may permit significant improvement in processing technique and quality control. Achievement of these goals may result in an expansion of sales which increases total employment in the firm.

¹ ILO: *Automation and Non-Manual Workers*, p. 44.

² Ibid., pp. 39-58. See also OECD: *Manpower Aspects of Automation and Technical Change, Supplement to the Final Report* (Paris, 1966).

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Automation and job skills

For a considerable period of time, uncertainty existed as to the effect of automation on the level of job skills. On one side were those who believed that the more sophisticated equipment would reduce skill requirements, that programmed machine tools, for example, would eliminate the need for skilled machinists and leave only a small élite of programmers and set-up men. On the other side were those who foresaw a decline of less skilled occupations and a growth of occupations requiring greater breadth of skill.

Evidence from case studies of automated installations now seems to indicate that in most cases the effect of automation is to raise the average level of skill by introducing new tasks involving a high degree of responsibility, expanding the scope of existing jobs and reducing the amount of unskilled work.¹

Table XIV. Educational level of computer personnel in 27 installations in the Netherlands in 1965

| Function | Qualification | | | | | | | | Total |
|-----------------------|---------------|----------------|----------------|-------------------------------|-----------------|------------------|------------------------------|-----|-------|
| | Elementary | Second- ary | High school | Higher technical school | Univer- sity | SPD ¹ | Certified account- ant | | |
| Senior staff | — | 5 | 5 | 1 | 14 | 3 | 4 | 37 | |
| Systems analyst | — | 8 | 35 | — | — | 10 | 2 | 55 | |
| Programmer | — | 45 | 56 | 2 | 1 | 8 | — | 112 | |
| Operator | 12 | 62 | 5 | — | — | — | — | 77 | |
| Key-punch operator | 85 | 82 | — | — | — | — | — | 167 | |
| Total | 97 | 202 | 99 | 3 | 15 | 26 | 6 | 448 | |

Source: F. M. MOLL: "Some Quantitative and Qualitative Data concerning Computer Personnel in 31 Dutch Firms", in OECD: *Manpower Aspects of Automation and Technical Change, Supplement to the Final Report* (Paris, 1966), p. 196.

¹ SPD is a non-academic extensive course in book-keeping.

¹ See, for example, E. SACHSE: *Technische Revolution und Qualifikation der Werkstätigen* (Berlin, 1965), pp. 39 ff.; J. AUERHAN: *Technika, kvalifikace, vzdělání* (Prague, 1965), pp. 161 ff.; M. KODAJ: *Ekonomické problémy kvalifikácie robotníkov* (Bratislava, 1966), pp. 44 ff.; "The Effects of Technological Change", in *Ministry of Labour Gazette* (London, July 1967), pp. 540-547. For an opposite point of view, see J. R. BRIGHT: *Automation and Management* (Boston, Harvard University Press, 1958). On office work see ILO: *Automation and Non-Manual Workers*, pp. 13-17.

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Prominent among new occupations introduced by automation are, of course, those associated with computers: systems analysis, programmers, operators, and key-punchers. Because computers and their associated technology are evolving at an extremely rapid pace, it is not possible to identify with any certainty the qualifications needed at various echelons of computer staff. Much depends on the type of work performed, whether scientific and engineering research or routine book-keeping. Qualifications of computer personnel also vary widely from one firm to another.

For illustrative purposes only, an analysis of the educational qualifications of computer personnel in a sample of establishments in the Netherlands is presented in table XIV. The qualifications shown in that table, although not necessarily representative of computer operations as a whole, do suggest a rough pattern. Key-punch operators, who comprise the least skilled and most numerous occupation, can function with an elementary education, although half the group have had a secondary education. The latter seems needed for computer operators, who operate under instructions a variety of machines. Qualifications of programmers and systems analysts, who are responsible for organisation of the work and problem solving, are less clear. The majority in both groups possesses a high-school education, but some have received more advanced education as well.

Some Czechoslovak and Soviet studies indicate that the effect of automation and advanced mechanisation in several factories has been to raise significantly the level of qualification of the personnel (see tables XV and XVI). This seems to accord with other experience reported in the USSR.¹

A study of the impact of technological change on manpower requirements in 20 steel-making plants within the European Coal and Steel Community in 1963² showed a similar picture with respect to increase in skill requirements imposed by technological advance. The report of this study indicated that it was difficult to enumerate the jobs whose character or content had changed as a result of technical development because practically all had been more or less affected and most were still developing. This applied equally to the production and to the maintenance services.

In production, the most marked changes were reported in the work of the lower supervisory staff, due to the increased number of control instruments to be supervised, and the acceleration of the melting and refining processes. Although physical effort had been considerably reduced, " requirements have become very exacting as regards power of concentration, quick reflexes, rapid

¹ For a review of published Soviet material, see ILO: Labour and Automation Bulletin No. 3: *Technological Change and Manpower in a Centrally Planned Economy* (Geneva, 1966).

² "The Impact of Technical Change on the Structure of Occupations and on Training in Steel Works", in *CIRF-Training for Progress* (ILO, Geneva), Vol. 4, No. 3, 1965, pp. 7-47.

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Table XV. Effect of automation and advanced mechanisation on skill levels in two USSR factories

| Grade | Percentage of workers in each grade | | | |
|-------|-------------------------------------|------------------|-------------------|------------------|
| | Automobile manufacture | | Machine tools | |
| | Before automation | After automation | Before automation | After automation |
| 1 | 2.5 | 0.6 | — | — |
| 2 | 43.6 | 27.8 | — | — |
| 3 | 37.0 | 37.5 | — | — |
| 4 | 12.4 | 25.0 | 40.0 | — |
| 5 | 4.9 | 9.1 | — | — |
| 6 | — | — | 34.0 | 25.0 |
| 7 | — | — | 26.0 | 45.0 |
| 8 | — | — | — | 50.0 |

Source: G. V. Ostryanskii: Rabochiye i tekhnicheskii progress. Industrialisatsiya i sozialnoe strukturirovanie rabochego klassa (Moscow, Akad. Nauk, 1965).

Table XVI. Effect of automation and advanced mechanisation on skill levels in two Czechoslovak factories

| Grade | Percentage of workers in each grade | | | |
|-------|-------------------------------------|------------------|---------------------------|------------------|
| | Petroleum refining | | Vegetable oil manufacture | |
| | Before automation | After automation | Before automation | After automation |
| 1 | — | — | — | — |
| 2 | — | — | 50.0 | — |
| 3 | — | — | 33.3 | 77.8 |
| 4 | — | — | 16.7 | 18.5 |
| 5 | — | 12.1 | — | — |
| 6 | 83.3 | 63.7 | — | 3.7 |
| 7 | 8.3 | 12.1 | — | — |
| 8 | 8.3 | 12.1 | — | — |

Source: J. AUCRMAN: Technika, kvalifikace, vzdilani (Prague, 1965), pp. 166, 170, 173, 197.

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decisions and calculations, knowledge of the process going on inside the furnace or converter, and precision in handling the instruments".¹ As regards maintenance services, it is reported:

More thorough theoretical knowledge than hitherto is essential everywhere. In addition, most of the maintenance workers require at least elementary knowledge in spheres related to their own trade: it has thus become indispensable for electricians to possess some knowledge of mechanics and for mechanics to have some knowledge of electricity...²

... Electronic specialists and instrument mechanics need to be familiar not only with the instruments they have to handle but also with the processes which these instruments record or control. It is therefore a question of having more advanced theoretical knowledge as well as increased dexterity and ingenuity and quicker reflexes.³

Data on numbers of personnel in the steel-making plants illustrate a familiar pattern throughout industry as a consequence of technological change—a rapid growth of output relative to employment and a faster growth of maintenance than production personnel, and disappearance of unskilled jobs.⁴

¹ "The Impact of Technical Change on the Structure of Occupations, etc.", op. cit., p. 27.

² *ibid.*, p. 23.

³ Findings similar to these in steel-making were reported from a study of blast furnaces; see "The Impact of Technical Change on the Structure of Occupations and on Training in Blast Furnace Departments", in *CIRF-Training for Progress* (ILO, Geneva), Vol. 3, Nos. 2-4, 1963, pp. 25-56.

Manpower aspects of economic and social policy

2

As a background to the more specific problems considered in later chapters, this chapter contains a rather general discussion of the relationship of manpower policy to general economic and social policy in Europe. It starts with brief comments on the aims of economic and social policy, the evolution of economic planning in post-war Europe and the reasons for the growing realisation of the importance of an active manpower policy to supplement the use of fiscal and monetary instruments for the management of national economies. It considers the relation of manpower policy to the goals of full employment and economic growth and its use as a tool for the attainment of social values. It discusses certain problems of policy in relation to the level of demand and factors making for structural and seasonal unemployment. It concludes with some discussion of the institutional arrangements that have been adopted for the integration of manpower policy into general economic planning or policy-making in western and eastern Europe.

The aims of economic and social policy

The basic aim of policy in European countries, eastern and western, as in others, is to increase the welfare of the population. This basic aim is usually formulated in terms of a high rate of economic growth. Other aims, such as more equitable distribution of income, and achievement of certain levels in education, health and welfare often figure also among the basic aims of society. And special importance attaches from the manpower as well as from the social point of view to employment objectives, which have been embodied in a number of international statements of policy, including

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the ILO Declaration of Philadelphia in 1944 and the Charter of the United Nations.¹

The full employment goal is expressed in greater detail in the Employment Policy Convention² adopted by the International Labour Conference in 1964, of which Article I reads as follows:

1. With a view to stimulating economic growth and development, raising levels of living, meeting manpower requirements and overcoming unemployment and underemployment, each Member shall declare and pursue, as a major goal, an active policy designed to promote full, productive and freely chosen employment.

2. The said policy shall aim at ensuring that—

- (a) there is work for all who are available for and seeking work;
- (b) such work is as productive as possible;
- (c) there is freedom of choice of employment and the fullest possible opportunity for each worker to qualify for, and to use his skills and endowments in, a job for which he is well suited, irrespective of race, colour, sex, religion, political opinion, national extraction or social origin.

3. The said policy shall take due account of the stage and level of economic development and the mutual relationships between employment objectives and other economic and social objectives, and shall be pursued by methods that are appropriate to national conditions and practice.

In the formulation of economic and social policies, governments have to take account of the limitation of resources which, faced with ambitious economic and social goals, can result in straining the economic system. Such strain often takes the form of deterioration in the balance of payments, or in an inflationary increase in the price level.

The full employment objective has had to be pursued with due regard to balance-of-payments considerations, particularly in countries (e.g. the Netherlands and the United Kingdom) where dependence on foreign trade is critical. The goal of a high rate of economic growth has in general taken priority over fiscal conservatism.

As one observer has noted: "Initial success in generating rapid, sustained growth has led to firm resolves not to permit relapses into relative stagnation—although it is recognised that some of the spectacular growth rates of the past decade cannot be maintained indefinitely".³ Although he acknowledges the

¹ In Article III of the Declaration of Philadelphia the International Labour Conference recognised the "solemn obligation of the International Labour Organisation to further among the nations of the world programmes which will achieve: (a) full employment and the raising of standards of living..." Article 55 of the Charter of the United Nations states that "the United Nations shall promote: a higher standard of living, full employment and conditions of economic and social progress and development."

² The following European countries have ratified this Convention: Byelorussia, Cyprus, Finland, Ireland, the Netherlands, Norway, Poland, Sweden, Ukraine, USSR, the United Kingdom.

³ R. A. GORDON: "Full Employment as a Policy Goal", in A. M. ROSS: *Employment Policy and the Labour Market* (Berkeley, University of California, 1965), p. 40.

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difficulties involved in attempting to quantify the relative importance given to each of the stated goals. He finds a seeming consensus in most countries that unemployment should not rise above 2 per cent of the labour force, that the rise in consumer prices should not exceed 2 per cent in any given year and that the rate of growth in real GNP for the same period should be about 4 per cent. This would imply an increase in man-hour productivity of the order of 3.5 per cent per year, though this would depend somewhat on the anticipated growth in the labour force. The productivity figure, in turn, becomes the figure for permissible increase in real wage rates¹, earnings increasing somewhat faster owing to wage drift.

While the level of unemployment in some countries of western Europe has recently been giving rise to concern, nevertheless countries in Europe have in general been remarkably successful in maintaining full employment. Western European governments have utilised appropriate monetary and fiscal measures to reduce unemployment, and have engaged in deficit spending to provide the maximum number of employment opportunities. As over-all unemployment rates have fallen, the emphasis has shifted increasingly to policies for dealing with abnormal unemployment rates that remain for particular sectors of the labour force. Despite the high levels of employment, almost every country has had its depressed areas. Differentially high unemployment rates have persisted for young workers in France and Sweden, and for older workers in Belgium, Sweden and the United Kingdom. Unemployment rates have also remained relatively high among unskilled workers in some countries, particularly in the United Kingdom. To deal with these situations and more generally to facilitate the adjustment of labour supply to changing patterns of labour demand, various governments have devised specific remedies and procedures, and have incorporated these to a greater or lesser degree into their over-all planning structure. The country which has moved the furthest in this direction is Sweden.²

With the achievement of full employment, countries have given increased attention to the growth objective. This is evident in the spread of post-war planning for economic development, discussed below.

Although a lower priority appears to have been assigned to the considerations of price stability and balance-of-payments equilibrium, these nevertheless remain as important constraints on the goals of full employment and rapid growth, as recent events have made clear. Under normal conditions most countries would seem to prefer a moderate degree of inflation to the sacrifice

¹ GORDON, op. cit., p. 43.

² See, for example, B. OLSSON: "Employment Policy in Sweden", in *International Labour Review* (Geneva, ILO), May 1963, and ILO: Report III (Part I), International Labour Conference, 52nd Session, *Summary of Reports on Ratified Conventions*, pp. 236-237.

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of any significant degree of employment or growth.¹ Sweden, for example, while concerned with preserving its competitive position in world markets, has nevertheless tolerated some inflation for the sake of full employment. Various European countries, it has been observed, and notably those for whom foreign trade is particularly important, have from time to time had to sacrifice some employment and growth because of the balance-of-payments constraint, but these have been unwilling to pursue measures which would force unemployment above what was considered politically tolerable. There are circumstances, however, in which constraints assume a greater importance. The goal of price stability, for example, is more important when it is also an instrument to achieve balance-of-payments equilibrium.² Price stability becomes an overriding constraint when inflation threatens to impair the functioning of the economy, as manifested by excessive speculation, politically disturbing inequities in the distribution of wealth and income, and manifestations of a "flight from the currency".³

The recent tendency on the part of western European governments to utilise an incomes policy reflects the desire to achieve price stability without incurring the risks to full employment and growth that flow from restricting aggregate demand through monetary and fiscal policy. Wage restraint, usually as part of a broader incomes policy, has been attempted in a number of countries, notably in the United Kingdom and the Netherlands. The experience with wage restraint suggests that it has not provided very effective constraint on price behaviour.⁴ Even in the Netherlands, where the incomes policy has been more successful than elsewhere, it has more recently run into serious difficulties.

In the countries of eastern Europe, manpower planning is an integral part of global economic planning to assist in achieving the aims of economic and social policy.⁵ The "manpower balances" of the planned availability of manpower and its distribution between different sectors of the economy (with breakdowns for different types of labour, and also for different regions) are elaborated together with the economic plan of which they form a part. In

¹ "The general balance of economic, social, political and institutional factors favours a long-run growth of demand, and continued inflationary pressures. There is, however, a possibility of not infrequent interruptions by limited recessions; and a marginal possibility, that any one of these might develop into either a substantial slump or a period of economic stagnation. This possibility would be increased by a failure to resolve the problem of continuing expansion with price stability..." H. A. TURNER and H. ZOETEWEIJ: *Prices, Wages and Incomes Policies* (ILO, Geneva, 1966), p. 27.

² See TURNER and ZOETEWEIJ, op. cit., p. 55.

³ GORDON, op. cit., p. 36.

⁴ See OECD: *Policies for Price Stability* (Paris, 1962), pp. 23-47.

⁵ For a detailed description, see "Manpower Planning in Eastern Europe", in *International Labour Review* (Geneva, ILO), Aug. 1962.

the formulation of the economic plans, attention has to be paid to problems of balance of payments as well as to the price level of the economy, though central control over foreign trade places in the hands of the State an instrument of economic management not available in market economies.

The spread of post-war economic planning

The major policy emphasis of western European governments during the 1950s was on adjusting demand to a point consistent with the goals of full employment and reasonable stability of prices and balance of payments. In most of these countries, less attention was paid to the patterns of future demand and the needs of the economy for longer-term growth.¹ Even without planning, some governments took conscious measures to improve growth potential. Some (e.g. the Federal Republic of Germany and Norway) sought to increase the share of investment in total spending. Other measures taken by various governments attempted to promote growth by altering the pattern of investment, reducing barriers to trade, and fostering the spread of improved technology. However, by the end of the 1950s the importance of longer-term policies for investment and other essential decisions was more generally realised. As a consequence, a growing number of countries in Europe have come to accept the idea of economic planning as an instrument of economic policy.²

The concept of planning, of course, is not new in market economies. During the Second World War, shortages of resources led to some forms of planning in most western European countries, usually involving the use of physical controls. After the war, continued shortages made it necessary for most countries to retain wartime planning measures for several years, and a number of countries in the early post-war period prepared reconstruction or development plans to aid in reconstruction efforts. France was the first country in western Europe to employ a multi-annual plan to attack its recon-

¹ See Angus MADDISON: *Economic Growth in the West* (London, Allen & Unwin, 1964), p. 100.

² Economic planning in a predominantly market economy has been defined as a process in which it is attempted—

- (a) to establish the major objectives of economic policy and to indicate their relative priorities;
- (b) to translate these objectives, as far as possible, into a complex of explicit, and consistent, quantitative targets for economic development over a stated period by such means as:
 - (i) evaluation of the productive resources available, analysis of the relevant interdependences of economic variables and examination of the effects of acceptable policy alternatives;
 - (ii) analyses and projections in quantitative terms of the actual and possible future rate(s) and problem(s) of development of the economy;
- (c) to select and apply, as necessary, in the light of the results of (b) and of the social and economic structure of the country, measures designed to achieve these plan targets and policy objectives. (United Nations: *Economic Survey of Europe in 1962, Part 2* (Geneva, 1965), Ch. 1, p. 2.)

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struction and development problems. Impetus to planning was also provided by the European Recovery Programme, or the Marshall Plan, in 1948. At the end of the Marshall Plan, a few countries elected to retain and expand their planning activities. France used its planning mechanism to influence the rate and composition of investment in order to achieve a continuing high rate of economic expansion. The Netherlands prepared annual plans to maintain monetary and balance-of-payments stability and to achieve a level of economic activity that would provide full employment of its resources. Norway and Sweden continued to plan on a multi-annual basis. Other countries continued to utilise aspects of planning, but emphasis tended to shift from the longer-run plans of the reconstruction period to short-term plans or forecasts for a year or so ahead. In the 1960s, however, there has been renewed interest in medium-term planning (i.e. plans of approximately five years' duration) with increasing attention paid to regional plans and problems. In some countries long-term "prospective" programmes (15 years or more) have been prepared for particular sectors.

Countries with market economies which now have planning programmes include Belgium, France, Greece, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Turkey and the United Kingdom. Of these, three countries—France, Norway and Sweden—have had a continuous series of medium-term plans during the entire post-war period.¹ In 1962 the Government of the United Kingdom established a National Economic Development Council to study ways of removing obstacles to economic growth. The Council issued reports which included (a) five-year national accounts projections for 1961-66 and 1966-70, based on a growth target of 4 per cent per annum; and (b) consideration of the policy indications involved in attaining the 4 per cent growth rate.² In 1964 the Government established a Ministry of Economic Affairs, which began preparation of a five-year development plan. Regional planning machinery was also instituted. In Belgium and Italy, planning has also been introduced on a national scale, using the French planning system as a model. Norway has set up a permanent planning secretariat in the Ministry of Finance, having shifted from an earlier system of four-year "national budgets". Sweden has also changed from a system of multi-annual "national budgets" prepared by an ad hoc Royal Commission of Experts to a permanent Council of Economic Planning under the chairmanship of the Ministry of Finance.³ It is of particular interest that econo-

¹ United Nations: *The European Economy in 1967*, Ch. I, pp. 98-99.

² See National Economic Development Council: *Growth of the United Kingdom Economy in 1966 and Conditions Favourable to Faster Growth* (London, HMSO, 1963); also OECD: *Economic Surveys of the OECD*; *United Kingdom* (Paris, July 1963).

³ See A. WATERSTON: *Development Planning: Lessons of Experience* (1965), p. 39.

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mic planning has also begun in the less industrialised market economies of Europe.

The Federal Republic of Germany, though it has not introduced a planning system, has established a Council of Economic Advisers to report annually on the possibilities for achieving the Government's economic objectives.¹

The increased use of planning reflects the growing importance of the public sector in market economies and the recognition of the need of a longer time-horizon to achieve major economic and social objectives. It also reflects advances in analytical concepts and tools (e.g. national accounting, input/output analysis, forecasting techniques) which permit a more global approach to the problems of the economy.

In eastern Europe all countries started economic planning after the Second World War. The system of planning was more homogeneous than in western Europe, as the countries based their system on the Soviet model, developed over a long period of experience with planning. The system of planning common to these countries—in spite of many modifications and variations in emphasis—is based on the existence of annual plans, and of medium-term plans (five- or seven-year plans). In addition, the countries have long-term perspective plans of about 20 years.

Planning in the eastern European countries differs in certain important respects from the type of planning that is found in the market-oriented economies.

One aspect of this difference, which is often stressed, is the different structure of ownership of the means of production. While public ownership is fairly extensive in many western European countries, the bulk of their economies consists of the private sector. On the other hand, although there is an element of private ownership in eastern European countries—particularly in agriculture—the bulk of the economy is in the public sector. This basic difference in the structure of the economies accounts for a large part of the difference in economic planning.

Another difference in planning between the market economies and the eastern European countries is the much stronger emphasis on economic growth in the latter. This strong emphasis may be explained at least to some extent by the circumstances in which planning was introduced in these countries. In the USSR the introduction of economic planning coincided with the great drive to industrialise a predominantly agricultural economy. In the other countries, economic planning was introduced after the Second World War when the economies had been greatly disturbed by the war. Moreover, apart from Czechoslovakia and eastern Germany, these countries were also mainly

¹ WATERSTON, op. cit., p. 40.

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agricultural, and economic planning was for them a tool both to rehabilitate their economies and to industrialise them.

The system of planning in eastern Europe has undergone some changes in recent years. As war damage was repaired and the industrial basis of the economies was established, the stress on production increases at almost any cost changed gradually, and account has been taken, more and more, of costs of production, the quality of products, and responsiveness to consumers' demand. This gradual change of emphasis has been accompanied by some decentralisation of decision-taking, by increasing the role of management incentives and by the introduction of systems of success indicators for enterprises¹.

It is against the background of these changes in economic planning in Europe that the evolution of manpower policy has to be seen.

The concept of manpower policy

The traditional approach to problems of employment and growth has tended to be mainly aggregative in character. In recent years selective measures have received greater attention as governments have become more conscious of structural obstacles impeding or retarding the achievement of their economic goals. This has particular relevance to problems connected with the matching of supply and demand for labour and adaptation to changing needs.

In general, the concern of governments with efficient operation of the mechanism for manpower distribution, and the measures taken by governments to improve its efficiency, are referred to as "manpower policy".

Among the factors contributing to the adoption of a manpower policy by various governments are the following:

(1) The impact of rapid technological progress on the occupational structure. As described above, there is an increasing awareness that technological change not only eliminates certain types of jobs, but also creates new jobs and occupations for which new skills and capacities are required. In addition to programmes which are concerned with creating new jobs, it has become necessary to assist people to adapt themselves to the changing job requirements. One aspect of this problem is the need to provide the type of education and training for potential members of the labour force that will best prepare them for a work career during which job and occupational changes are likely to occur.

¹ See, for example, E. G. LIBERMAN: "The Role of Profits in the Industrial Incentive System of the USSR", in *International Labour Review*, Jan. 1968, and M. KABAJ: "Evolution of the Incentives System in USSR Industry", *ibid.*, July 1966.

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(2) The appearance in the post-war period of labour shortages in key sectors of the economy resulting in "bottleneck" situations in certain industries and occupations. Under these conditions efforts to stimulate economic growth through the use of fiscal and monetary means may simply intensify the existing competition for scarce resources and add to the inflationary pressures. Governments have accordingly taken measures to improve the machinery for matching labour demand and supply, to facilitate recruitment and to provide training to meet the demands for labour. Special consideration has also been given to meeting the present and future needs for particular skills that are in short supply.

(3) In industrially advanced countries where virtually full employment has been reached and in general maintained for a number of years, it has become increasingly evident that a high level of adaptability of manpower is a condition for the prolongation of full employment with sustained economic stability. Inflationary pressures and the consequent need for disinflationary action have stimulated interest in the development of appropriate manpower measures to provide a more adaptable labour force and to remove obstacles to labour mobility.

(4) Increased attention has also been given to manpower requirements in governmental policies dealing with underdeveloped or distressed areas. In most if not all industrialised countries there are laggard sections of the economy even where there is over-all full employment, and even when the growing industrial centres are over-expanding.

(5) Other factors include the impact of trade liberalisation and of international migration of workers and their families. In the case of trade liberalisation, provisions for manpower adjustment programmes are in some instances incorporated directly into the relevant treaties and enabling laws. In the case of international migration, governments are faced with adjustment problems in relation to both immigration and emigration.

In addition to these and other specific incentives for a manpower policy, there are two more general considerations in its favour. One is the benefit to the economy to be derived from the more effective use of human resources resulting from more efficient matching of labour demand and supply. Another is the increased importance attached to the satisfaction of aspirations for individuals through employment in jobs where they can be most productive.

While each country must, of course, adjust its manpower programme to its particular needs, it may be of interest to note here a generalised statement of the objectives of a fully developed manpower policy formulated by E. Wight Bakke in the following terms:

(a) to anticipate the nation's manpower requirements at all levels and to plan for their fulfilment;

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- (b) to develop and increase the qualitative and quantitative adequacy and adaptability of the labour force and of employment opportunities;
- (c) to provide the labour market facilities essential to bringing (labour) supply and (labour) demand together in a way which promotes the economic strength and growth of the nation and maximum self-realisation in work for its people;
- (d) to participate in the formulation and implementation of the aspects of general economic policy and practice at all points where they affect, or are affected by, manpower and employment factors.¹

In general, recent developments in manpower policy in the market economies of Europe, as reflected in OECD reports concerning its member countries, have taken place in the following areas: strengthening of the employment services with respect to their placement functions and also in regard to their auxiliary services (e.g. employment market information, occupational counselling and guidance);² the promotion of geographic and occupational mobility and adaptability through financial support and provision of necessary training facilities; selective job creation in cases of long-term and short-term manpower surpluses due to structural, cyclical and seasonal economic fluctuations or chronic regional underdevelopment; increasing the employability of the handicapped and other marginal groups through rehabilitation, educational advancement and special work arrangements; and provision of income maintenance and other forms of social adjustment to increase the acceptance of change in the employment market.³

In the eastern European countries as in other European countries, technological change not only reduces the importance of certain types of jobs but also creates new jobs and occupations. Similarly, labour shortages may threaten to appear in some industries and occupations and give rise to the danger of "bottleneck" situations. Equally, almost all eastern European countries have their own "underdeveloped areas", for which special measures have to be devised. While many problems may be similar to those of other European countries, the approach in the eastern European countries differs. Since the introduction of economic planning, such problems, together with many others, are dealt with within the framework of the global economic plan. Manpower planning is particularly concerned with the problem of preventing shortages of labour in key industries and occupations, with the transfer of manpower from agriculture and other sectors and with the training of new

¹ E. WIGHT BAKKE: "An Integrated Positive Manpower Policy", in A. M. Ross: *Employment Policy and the Labor Market*, pp. 362-363

² This subject is dealt with more fully in Chapter 8 of this report.

³ OECD: *Implementation of the OECD Council Recommendation on Active Manpower Policy*, Report by the Manpower and Social Affairs Committee, 1968 (offset).

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entrants into the labour force. In response to structural changes in the economy and to the effects of technological change, programmes of further training for adults have been added to the programmes for youth training.¹ The problem of dealing with "underdeveloped" areas is also dealt with in the context of general economic and manpower planning. The particular measures by which manpower plans are implemented in the socialist countries have undergone considerable changes. These are described later in this chapter.

Relationship of manpower policy to economic and social goals

Full employment

Generally speaking, manpower policies, at least in the short run, do not create new jobs except peripherally. The primary determinant of the level of employment, apart from frictional unemployment, is the level of aggregate demand. However, manpower policies have a strong supporting role in job creation, as they may have an important influence on the extent to which increases in aggregate demand result in increased employment and not just higher prices. At times when there is a general excess of labour demand over labour supply, programmes of further training and related measures including retraining may in part lead directly to increases in employment. But even in this situation, the major function of manpower policy is to aid in the allocation of workers to jobs rather than to create new employment opportunities. It also plays an important role in improving the quality of the labour force through its training and placement activities.

Manpower policy has a more direct role in the avoidance of frictional unemployment. It does this by promoting the availability, mobility and quality of the human resources needed in the economy (both at present and in the future), and by ensuring the smooth adjustment of people to changing geographic and occupational patterns of employment. Governments in industrialised countries are increasingly aware of the problems of adjustment created by rapid technological change and the changing composition of output. At the same time, it is increasingly recognised that these problems of adjustment are manageable through the use of a proper manpower policy. There is also an increased awareness that the two aspects of employment policy are closely related. On the one hand, manpower policy makes possible a higher level of full employment. On the other hand, problems of adjustment in the distribu-

¹ See "Manpower Planning in Eastern Europe", in *International Labour Review*, Aug. 1962.

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tion of labour are more easily dealt with if a satisfactory high level of aggregate demand can be maintained.

Manpower policy also has an impact on employment through its influence on other policy measures and on administrative measures adopted by governments. It may also exert an important influence on the private sector.

Economic growth

The effectiveness with which manpower is utilised and with which it adjusts to technological and economic change is a major determinant of the rate of economic growth. Promotion of optimum use of manpower resources can be better sustained if there is an adequate and trained labour force. One aspect of manpower policy in this area is to minimise losses in economic activity due to labour shortages. Another is the anticipation of future manpower needs. Still another is the preparation and guidance of competent people to areas of greatest demand. Manpower programmes which result in a lower level of unemployment increase potential output by increasing labour supplies and by making possible more favourable adjustments in the utilisation of manpower. Finally, to the extent that technical progress is a function of education and vocational training, improvements in these have an influence on productivity.

Manpower policy as a tool for attainment of social aims

Manpower policy promotes a new concept of the function of employment services: these exist not merely to aid the unemployed in finding jobs, and employers in finding workers, but also to assist persons in the employment market to achieve their maximum potential and find their most productive employment. The emphasis shifts from mere job placement to attaining the most productive use of human resources.

In addition, it is the purpose of manpower policy to minimise the negative aspects of change, e.g. to reduce the personal hardship and loss to the individual affected by change and to avoid the loss of human quality resulting from chronic unemployment. Through effective counselling and programmes of income maintenance, people can become qualified for new jobs without impairment of their morale or to their physical and mental qualities. Appropriate measures of this type may also induce people to accept technological and economic change more readily and reduce the need for protective and restrictive measures which would slow the rate of progress.

Measures for achieving employment aims

Manpower policy can make its full contribution to the attainment of economic and social aims only if it is closely co-ordinated with, and used to

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support, fiscal and monetary measures for the management of national economies. This can be seen particularly clearly in connection with employment aims. As noted above, the level of demand, which is a major determinant of the level of employment, has to be controlled mainly by means of general fiscal and monetary measures, while adaptation to structural and seasonal changes making for unemployment calls for the use of selective measures of manpower policy.

Controlling the level of demand

In dealing with fluctuations in demand which interfere with employment objectives, governments have resorted to a range of policy weapons.

Public spending has become sufficiently large to have an important bearing on both the cyclical and growth behaviour of the economy. In the late 1950s, government consumption of goods and services in industrialised western European countries varied from 12 to 18 per cent of GNP, and government investment in public works and public enterprises from 3.5 per cent of GNP in Belgium to 9 per cent in the Netherlands; government finance for housing was of the order of 3 per cent of GNP. Governments directly controlled from 40 to 60 per cent of total investment activity.¹ Governments clearly have the means to offset undesirable fluctuations in private investment and private consumer spending and to spur the economy when the private sector is lagging. Many governments favour public works and construction schemes as the means for channelling government expenditures into specific projects or areas where they will produce the maximum result.² There are many limitations, however, on direct government intervention in market economies. Government spending decisions are commonly diffused between different departments and local governments, so that it becomes difficult to carry out a co-ordinated programme. Moreover, government spending is influenced by a wide range of policy considerations, some of which may run counter to the immediate employment or growth needs of the economy. For these reasons, governments must rely more heavily on indirect controls over private spending, which in any case represents the largest share of national income expenditure.

In exercising influence on the private sector, governments have a choice of policy measures which have been widely used in the post-war period. These include fiscal and monetary measures, which influence the level of economic activity through the manipulation of interest rates general or selective easing of credit requirements, adjustment of the tax burden, and increases

¹ Angus MADDISON, op. cit., p. 112.

² See ILO: *Employment and Economic Growth* (Geneva, 1964), pp. 86-88.

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in one form or another of transfer payments to consumers through social security or other benefit programmes. Governments have also experimented with the use of selective tax reductions to assist particular industries hit by recession and with measures to encourage investment by allowing accelerated depreciation of investments that the government has approved. These measures have been useful in varying degrees both for stabilising employment and encouraging growth. They do not always have their intended effect, however, and there is a risk of pushing the economy too far in the direction of recession or inflation, which may then call for a reversal in policy. A further problem is that aggregative measures, while successful in moving the broad averages toward the desired goals, tend to overlook the finer adjustments that may be required in particular sectors.¹

In the eastern European countries, the problem of controlling the level of demand in order to achieve full employment has not arisen. Particularly in the post-war period, private and public demand exceeded the productive capacity of the countries and the problem was to increase production as much as possible to satisfy this demand. With the repair of war damage and with the industrialisation of the countries, demand for particular products may fall short of the supply, but there is no problem relating to the over-all level of demand, since in a centrally planned economy any fall in the demand of the population can be quickly compensated by increased demand of the State, which includes practically all investment. In addition, effective demand of the population can be regulated by the government through wage policy.

Problems of structural unemployment

Fiscal and monetary policy measures are less useful in dealing with structural unemployment, which has its roots in long-term shifts in demand and supply conditions. On the demand side, structural unemployment may be due to shifts in market demands or in production plans due to underlying changes in needs or wants. On the supply side, disturbances are caused by changes in the availability or quality of resources or by changes in technology.²

The major impact of structural change on employment is to necessitate a redistribution of workers who would otherwise become, or have already become, redundant by reason of the change. Although structural change often represents progress for the community as a whole, it entails hardship for workers who are compelled to seek new jobs, which frequently require

¹ For a critique of the use of fiscal and monetary policies in Europe in the 1950s, see Angus MADDISON, *op. cit.*, pp. 131-134.

² See ILO: *Employment and Economic Growth*, p. 102, and *Unemployment and Structural Change*, Ch. 1.

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a change of residence or acquisition of new skills. The provision of assistance to workers in making a satisfactory adjustment under these conditions "is a question of equity as well as being essential to the efficient operation of the economy".¹

The measures that governments can apply in dealing with structural unemployment are of two kinds: preventive and corrective.² Preventive measures consist of "an effort at forecasting which industries and occupations can be expected to expand or contract as well as the numbers of workers with each type of skill who will be needed if the economy is to expand smoothly at the desired rate; and secondly, an effort to train workers to meet these needs once they have been ascertained".³ Forecasting, although complex and subject to many hazards, aims at estimating with a fair degree of accuracy the manpower needs of industries and occupational groups, including the numbers of workers and the skills required. Systematic and detailed forecasts of manpower requirements have been carried out, notably in France, Sweden and the Netherlands.⁴ Measures for training workers are discussed in a later chapter of this report.

Corrective measures are required when, despite preventive action, the adjustment of supply and demand that is called for fails to occur. The measures available to governments faced with imbalances of this nature are numerous, and may be classified as follows:

(a) Measures for the local re-employment of workers affected by structural change. These include the provision of special facilities for vocational training to assist workers to acquire needed skills, encouragement and necessary assistance to existing firms to convert to new products in order to retain their personnel, and incentives to attract new firms to areas suffering from unemployment or underemployment.

(b) Measures to facilitate the geographic mobility of labour. In some instances, structural problems affecting the labour force can only be solved if workers are willing to move to other jobs. As in the case of local re-employment, it may be necessary to assist workers in acquiring new skills. Other necessary measures include providing removal grants and suitable housing help for workers and their families. Special measures may also be needed to assist workers whose re-employability is impaired by reason of age, physical handicap or other obstacles to adaptation.

¹ ILO: *Employment and Economic Growth*, p. 105.

² These measures are discussed in greater detail in *ibid.*, pp. 109-120. The material in this section is digested from this source.

³ *Ibid.*, p. 107.

⁴ *Ibid.*, p. 108 and footnotes.

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Problems arise from structural change both in the market and in the centrally planned economies in Europe. Some of the measures used to deal with them are similar. Many of these measures are discussed in greater detail in later chapters of this report.

Problems of seasonal variations

Progress has been made in the last ten to twelve years in reducing the waste of manpower and the hardship which result from the suspension of activities in a number of industries during off-seasons. The following paragraphs refer to building, agriculture, food and drink manufacture, hotels, and the clothing industry.

The most striking developments in this connection are the efforts made in countries with bad winter conditions to continue construction activity over the whole year. Essentially, these combine technical innovations by the industry with administrative measures by governments.

Developments in the techniques of building in winter conditions—longer-term planning, improvement of access roads, thawing-out of ground for excavations, use of more powerful earth-moving machinery, use of additives for concreting in near-frost conditions, use of air-pressure and other hangars so that work can be done under cover, etc.—have become more widely accepted. In addition, industrialised building techniques allow more work to be done off the site and much of the finishing work to be done under cover: they also rely more on dry-fixing methods. Better shelters on the site and better protective clothing have been introduced.¹

The Seventh Session of the ILO Building, Civil Engineering and Public Works Committee in 1964 included the following in its conclusions:

It is widely recognised now that technological advance has removed the technical obstacles to continued year-round employment in most operations in the construction industry. The two principal reasons for the persistence of the seasonal pattern in the construction industry are, firstly, deep-rooted habits on the part of the public and of the industry in accepting seasonality in employment as a natural consequence of seasonality in weather, and secondly, the additional direct costs that are involved in maintaining year-round construction.²

The industry has in many instances responded to these possibilities by changing its practices. In particular, the larger contractors who have invested heavily in capital equipment wish to see this used for the maximum number of days per year, and have in many cases introduced modern management

¹ See ILO: *Practical Measures for the Regularisation of Employment in the Construction Industry* (report to the Seventh Session, Building, Civil Engineering and Public Works Committee) (Geneva, 1964), (mimeographed), Ch. VII. Also Jan WITROCK: *Reducing Seasonal Unemployment in the Construction Industry* (OECD, Paris, 1967).

² ILO: *Official Bulletin*, Vol. XLVII, No. 3, July 1964.

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methods which allow them to plan operations on a year-round basis. The difficulties are greater in small enterprises, which are both more vulnerable to seasonal fluctuations and less able to introduce innovations permitting work to continue during winter conditions. Government and municipal budgeting practices which led to insistence on the completion of public contracts before the end of the year, or to the starting of new projects mainly in the spring, have been changed. Government construction in many of the countries affected is now either planned on a year-round basis, or even concentrated on the winter months. For instance, in Denmark, maintenance and repair work on public buildings may not be started before 1 October and must be completed or suspended on 1 May; in Sweden a circular issued in April 1965 directed the authorities to restrict the demand for workers on their projects, whether carried out by direct labour or a contractor, until 31 October; in the Federal Republic of Germany, at least 30 per cent of the funds allocated to federal construction projects must be used during the months November to March; in Austria, certain provinces have adopted timing schedules for different types of construction project, which ensure that work which can be carried out in the winter months is reserved for those months.

While action taken in the public sector covers a considerable part of building activity, steps are also taken to influence private building. In the Federal Republic of Germany, for example, publicity media are used to correct the idea that winter building is inferior in quality, and to point out the advantages and opportunities of building in winter; in addition, a subsidy of 11 per cent of the payroll is paid for government-supported private housing projects during the period 1 December-31 March. Under the Employment Promotion Bill which is under consideration, the Manpower Agency would take over a proportion of the additional cost for working days in January and February, provided that the client or another body takes over the remaining extra cost. Help of this kind would make it financially possible for many firms to provide the complete protection afforded by collapsible hangars for men, machinery and materials.

In the Netherlands, a subsidy is paid to the building employer for every worker employed on approved projects from mid-November to the end of March, on condition that measures are taken to ensure that work continues at temperatures down to about -5°C .

Payments for lost time, while they may be introduced for income maintenance purposes, also induce employers to continue to keep workers continuously on their payroll.

An incidental aim of the regularisation policy in the construction industry is to improve its attractiveness to new entrants; in the past, instability has been

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a deterrent to the recruitment of young people to skilled occupations in the industry.

In no other industry is there such a broad spectrum of technical innovation and government support measures directed to maintaining employment in the off-season.

In *agriculture*, Europe is less affected than most other continents by problems of seasonal unemployment or underemployment, particularly in those countries where it is chiefly carried on in family-owned mixed farms with livestock calling for attention the whole year round. In the countries of southern Europe, monoculture is more common and leads to manpower being inactive at certain times of the year, but this seasonal inactivity varies from one region to another, is a relatively minor factor in the general pattern of low productivity of small-scale farms.

In countries which have achieved high productivity in agriculture, technical innovation has tended to eliminate the seasonal peaks of demand for labour to carry out operations such as hoeing, weeding and harvesting, as a result of the development of selective weedkillers and the increased use of combine harvesters and other mechanical methods of harvesting. There are still problems of seasonal peaks in horticulture, where perishability of the produce makes mechanised harvesting difficult. Research is being directed to finding strains which will enable production to be extended into the winter, and experiments are being made with new chemical sprays which should cut down other seasonal labour-intensive operations.

In many of the collective farms of the USSR emphasis is placed on diversifying employment by introducing glass-house horticulture, small-scale industries (to a large extent but not exclusively in food processing) and construction and service activities. In Bulgaria, the average number of man-days worked on co-operative farms increased from 198 in 1961 to 223 in 1964 as a result of diversification and the introduction of new varieties as well as of the extension of irrigation. In Hungary steps are taken to give members of co-operative farms a second skill which can be used in the winter time; for example an irrigation or plant protection worker may in the winter be employed in the repair of equipment or the preparation of seedlings.

There has been some progress in regularising employment in the *food and drink manufacturing* industries. The ILO Tripartite Technical Meeting for the Food Products and Drink Industries in 1963 urged the desirability of—

(a) taking the necessary steps (including where possible the readaptation of industrial plant) in order to enable wider diversity of food and drink products, or different forms of one basic product, to be processed throughout a greater part of the year under the same roof, and thereby to ensure greater continuity of employment;

(b) trying to influence the demand by "contra-seasonal" advertising;

(c) the employment at a full normal wage of the extra labour force required at peak seasons, such as migratory workers, agricultural workers, married women, high-school and university students.¹

The greater availability of bulk deep-freezing equipment has permitted extension of food-conserving activities. The advantages brought by diversification in the form of more continuous utilisation of equipment and workers have been a factor in the trend towards larger undertakings in this industry; undertakings in France, Switzerland and the United Kingdom, in particular, have found ways of introducing new products to fill seasonal gaps, and of pooling packing and transport facilities so that they are used for an increasing range of foods.

Less success has attended efforts to reduce seasonality of employment in the *hotel, restaurant and tourist industry*. The ILO Tripartite Technical Meeting on Hotels, Restaurants and Similar Establishments in 1965 urged the desirability—

...of promoting the extension of the seasons for tourism by advancing the beginning or delaying the end of the various entertainments offered to the visitors, by advertising campaigns out of season and by facilitating by all appropriate means the development of tourism for all, for example by reducing fares.²

The main difficulty continues to be the lack of success in staggering work and school holidays.

The position in the *clothing industry* has greatly improved. At the ILO Tripartite Technical Meeting for the Clothing Industry in 1964 it was reported that seasonal fluctuations in this industry in the countries of western Europe had practically disappeared, and that the early placing of orders by retailers facilitated better planning of production; it was also reported that, in the United Kingdom, the guarantee by chain stores of large orders created stability of employment.

Another possibility that is being increasingly discussed in respect of all industries is that of making use of any unavoidable periods of slackness to give updating training or retraining to the workers affected.

Manpower policy as a part of economic planning

Countries with market economies

As noted above, a major test of the extent to which governments have developed effective manpower policies is the degree to which manpower plans and measures have been integrated and co-ordinated with other plans and

¹ ILO: *Official Bulletin*, Vol. XLVII, No. 2, Apr. 1964.

² Ibid., Vol. LXIX, No. 1, Jan. 1966.

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measures for achieving economic and social objectives. Measures taken on an ad hoc basis by temporary agencies are rarely adequate. The creation of numerous separate agencies, with a diffusion of operational responsibility, also leads to unsatisfactory results. Moreover, vested interests among the several agencies stand in the way of future integration.¹

The degree of integration varies markedly from one country to another. Sweden is at one extreme. The responsibility for co-ordinating all employment and manpower services in Sweden, both nationally and regionally, is concentrated in a single independent agency, the National Labour Market Board. The labour market policy administered by the National Labour Market Board is regarded by the Swedish Government "as a necessary element of an economic policy that aims at full employment, stable money, and a higher standard of living".² In addition to the exercise of normal manpower functions, the National Labour Market Board also has a considerable degree of control over programmes which in other countries are administered by other departments of government. Thus, the Board can speed up the use of regular funds for public works, take measures to step up procurement by both central and local governments, approve tax exemptions to provide incentives for private investment, and regulate the issue of building permits. In the manpower field, the Board has responsibilities for placement and recruitment, vocational guidance and training, vocational rehabilitation, registration and compensation of claimants under unemployment insurance, payment of incentives for the relocation of workers, and control of the entry of foreign workers. It also makes surveys and gives advice on industrial location, and supervises works projects initiated to counteract unemployment.

As regards the non-manpower aspects of its programmes, the Board co-ordinates its efforts with those of other government agencies concerned. It operates through a decentralised organisation, consisting of county labour boards which, in turn, direct the county employment services. The National Board follows developments in the labour market and shapes manpower policy accordingly. Thus, Sweden has not only achieved integration, but has given manpower policy a dominant role in achieving and reconciling its various economic and social objectives. The advance of manpower policy has been reflected in a doubling of the expenditures (in real terms) during the period 1960-65. By 1965, the major programmes—the employment service, the adult retraining scheme, geographic mobility incentives and various arrange-

¹ See E. WIGHT BAKKE, op. cit., p. 369. See also the OECD Recommendation on Manpower Policy as a Means for the Promotion of Economic Growth, adopted in May 1964.

² "Labour Market Policy in Sweden", in OECD: *Review of Manpower and Social Policies* (Paris, 1963), p. 20.

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ments for the handicapped—accounted for nearly 6.5 per cent of the national income. Budget appropriations for job creation in labour surplus areas amounted to about the same proportion. Other programmes have broadened training facilities, strengthened the programmes of regional planning, and increased the amount and types of support given to workers who must move to jobs in new locations.¹

In France, the manpower implications of over-all economic planning are thoroughly explored. Manpower projections and guidelines are developed by the Manpower Commission of the General Commissariat for Planning. These take into account the work of various specialised sectoral committees and working parties in which, like in the Manpower Commission itself, both public and private interests are represented. If the Commission finds that the growth objective will have adverse consequences on employment, these findings may bring about a revision of such objectives.

The administration of the manpower programmes is dispersed among a number of governmental agencies. Incentives to stimulate the creation of demand for manpower in areas with a shortage of jobs are the responsibility of the Ministry of Economic Affairs and Finance. Manpower policy relating to the nationalised sector of the economy is handled by the Ministry for this sector. Manpower activities concerned with employment in the private sector and vocational training of adults are the responsibility of the Ministry of Social Affairs. Within this Ministry, the State Secretariat for Employment Problems includes among its functions the operation of the employment service, vocational guidance and training, and the recruitment and placement of foreign labour. The Fifth Plan for Economic and Social Development, approved by Parliament on 30 November 1965, allocates responsibility for employment and manpower policies as follows: the Office of the Prime Minister (to which is attached the Commissariat Général au Plan et à la Productivité) is responsible for supervising the balanced development of the country as a whole; the Ministry of Economic Affairs and Finance is responsible for adjusting prices and channelling investment; the Ministry of Education is responsible for dealing with the education of the young; and the Ministry of Social Affairs is more particularly responsible for promoting an active employment policy, especially through the medium of the Fonds National de l'Emploi.

This National Employment Fund, which was established in 1963, is intended to strengthen the various manpower schemes already in existence. It is administered by the Ministry of Labour assisted by a tripartite body with

¹ For a full account see National Labour Market Board and Swedish Institute: *Modern Swedish Labour Market Policy*, (Stockholm, 1966).

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advisory powers. The Fund enables the Ministry, in cases of mass redundancies, to enter into agreements with employers for government support for retraining of workers, early retirement and resettlement, income maintenance during waiting-periods, and temporary guarantees against excessive losses in income for workers taking up new jobs. Other recent measures have strengthened the regional development programme, assisted the adaptation of migrant workers, provided additional aid to handicapped persons, and placed greater emphasis on vocational guidance and counselling for the young.

In the preparation of the Sixth Economic and Social Development Plan, further steps are being taken to ensure a more thorough integration of manpower planning within over-all economic planning.

Other patterns of integration exist in the Federal Republic of Germany, the Netherlands and the United Kingdom.

In the Netherlands, a Central Planning Bureau establishes annual guidelines for economic policy, utilising information furnished by the Ministry of Social Affairs and Public Health as well as by other departments.¹ Consultation and co-ordination among the various governmental agencies enables them to adjust their programmes to the possibilities envisaged in the guidelines. Primary responsibility for manpower programmes rests with the Ministry of Social Affairs and Public Health, although considerable influence on manpower policy and administration is exercised by the Social and Economic Council and the Foundation of Labour. The Social and Economic Council, which was created to advise the Government on social and economic policies, is a tripartite body which provides a means for obtaining the participation of industry and labour in major policy decisions. The Foundation of Labour, which represents the major employers' and trade unions' federations, is mainly concerned with wage policies and regulation.

Responsibility for determining the general lines of manpower policy rests with the Directorate of General Policy of the Ministry of Social Affairs and Public Health, which was set up in 1965 to advise on policy matters and to serve as a central research and statistical branch of the Ministry. Implementation of the policy is mainly the responsibility of the Director for Manpower of the same ministry. The Director of this agency heads the National Employment Service and also administers a supplementary employment policy which is concerned with projects to counteract down-turns in employment. The Directorate is also responsible for the programme of vocational training for adults. The Ministry of Social Affairs and Public Health holds periodic meetings with the Ministry of Economic Affairs to co-ordinate policies on employment and creation of employment opportunities. The Ministry of Social

¹ See OECD: *Manpower and Social Policy in the Netherlands* (Paris, 1967), p. 64.

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Affairs and Public Health may also refer questions of manpower policy to the Social and Economic Council. In March 1965, following a request from the Ministry, the Social and Economic Council set up an ad hoc Committee on Manpower "to consider to what extent further adjustment of manpower policy . . . may promote economic growth at the highest level".¹ This led in turn to steps to redraft the Employment Exchanges Act so as to incorporate new thinking about manpower policy. Reorganisation of the governmental machinery reflects changes and advances in policy. The centralised wage policy in effect since the end of the war has recently been liberalised and wage determination has been decentralised. In 1964 the General Directorate for Manpower was reorganised and strengthened to improve mobilisation of marginal groups, vocational guidance, and accelerated training for adults.

In the United Kingdom, the goals for economic growth are implemented by a network of agencies, including a National Economic Development Council, industrial training boards, economic development committees for different industries, regional planning councils, and a National Board for Prices and Incomes. As in the Netherlands, the co-ordination of manpower policy with the work of these agencies, as well as with the various ministries involved, is a major task. The administrative manpower functions are carried out by the Department of Employment and Productivity, which is responsible for the employment service, the vocational guidance service, the rehabilitation, training and placement of the disabled; compilation of employment and unemployment statistics and special manpower research projects; arrangements for workers recruited from abroad; assistance to workers wishing to transfer to other areas of the country; the government training centres, and the administration of the Industrial Training Act. Manpower policy, however, is also the concern of a number of other government departments. The Treasury and the Department of Economic Affairs are increasingly concerned with manpower policy as a part of the over-all planning process. Other departments dealing with aspects of manpower problems include the Board of Trade, the Ministry of Technology, the Ministry of Social Security, the Education Department and the Ministry of Housing and Local Government.

Co-ordination is achieved through a number of interlocking committees and other bodies on which the various departments are represented. There are also a number of advisory bodies, representative of various interest groups, whose role is to advise ministers on a range of policies, including manpower. The National Joint Advisory Council provides a means of regular formal consultation between the Government and national representatives of employers and workers on a large part of the field of manpower policy.

¹ OECD: *Manpower and Social Policy in the Netherlands*, op. cit., p. 243.

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... of balance-of-payments difficulties, the Government has had to give special attention to the co-ordination of manpower policies with measures to re-establish equilibrium in the balance of payments while encouraging growth. Emphasis has been placed in recent years on the expansion of industrial training for persons of all ages, with increased attention to improving the adaptability of the workforce. To promote readier acceptance by workers of rapid change, legislation has provided for an over-all system of redundancy pay, and has also increased benefits under the unemployment insurance scheme. Measures have also been taken to strengthen the regional development programme, to increase the capacity of government training centres, and to improve the facilities for placement and vocational training of both young people and adults. The new measures are regarded by the Government as a "fundamental overhaul" of its manpower policy.

In the Federal Republic of Germany, where there are no special agencies for over-all economic planning, programmes for achieving the basic aims of the Government are developed and administered by the various ministries in their respective fields of competence. Over-all responsibility for the full employment programme rests with the Ministry of Labour and Social Affairs. Administration of the programme involves the matching of workers and job vacancies, the vocational guidance of young workers, the training of workers and the transfer of workers from areas where training and jobs are not available to areas where there are better opportunities. The key agency for manpower policy is the Federal Agency for Placement and Unemployment Insurance,¹ established as a self-governing body under the supervision of the Labour Ministry. General policy is decided by a tripartite administrative council within the Agency, subject to the approval of the Minister of Labour and Social Affairs. Tripartite boards at national, regional and local levels assist in the administration of the Agency, which includes operation of the employment exchanges. The Agency has also established a research institute of its own to conduct a wide range of labour market studies and to assist in estimating future trends in employment and occupational needs. It also has broad responsibility for regional industrial development, and for training and re-training workers. In the latter area, its responsibilities have been enlarged by recent legislation concerning vocational training. Recent changes in manpower policy have been motivated by a shift from reliance on recruitment of foreign workers as a source of labour supply to a greater stress on internal adjustments to increase and improve the supply of available workers. Recent measures have attempted to encourage industrial development in peripheral

¹ See also Chapter 8 regarding proposals to convert this agency into a federal employment agency.

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areas, to help mobilise marginal groups for employment, to stimulate part-time work for women, and to improve and expand the further training and retraining of adults.

Other countries have similarly modified their planning procedures or have expanded the activities of existing agencies to accommodate the growing pressures for manpower programmes. Increasing attention is being paid by governments to the problem of co-ordination among the various departments whose activities have a bearing on manpower objectives. Labour ministries in particular have enlarged their responsibilities and are under greater compulsion to co-ordinate their activities and those of their sub-agencies with the other operating departments. Efforts have also been made by governments to institutionalise the participation of employers' and workers' organisations through representation on joint or tripartite committees which advise the government agencies, and in some cases the representative bodies are drawn more actively into policy making and administration.

Rapid advances in these respects have taken place in recent years in Austria and Belgium. In Ireland a new National Manpower Agency was created in 1965 to ensure a co-ordinated approach to manpower problems. In Norway the Ministry of Labour is responsible for planning and implementing the manpower policy, and takes an active part in preparing the annual state budget, the national economic budget and the four-year long-term programmes. In Denmark manpower policy is mainly the responsibility of the Ministry of Labour, with the advice of a tripartite labour market council. In Italy manpower policy has played an important role in development planning. In the less industrialised countries (Greece, Portugal, Spain, Turkey) manpower agencies and policies have also been introduced to facilitate the movement and training of agricultural workers who transfer to industry and services, to provide vocational training for young workers, and to provide aid to migrants.

Countries with centrally planned economies

In the eastern European countries and the USSR manpower policy is to a great extent incorporated in the labour plan, which in turn is an integral part of the over-all development plan of the economy. All central development plans are drafted in accordance with certain basic plan objectives, which relate among other things to the distribution and utilisation of the available manpower resources.

While the countries for the most part adopted the planning methods evolved in the Soviet Union, as the national economies developed many variations in planning methods were introduced in the individual countries. Nevertheless, the main framework of plan construction in the field of manpower

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planning is still similar enough to permit a common treatment of some of the main problems. It must be emphasised, however, that this holds only for the methods of plan-building while, as noted below, there are far greater differences between countries in the field of plan implementation.

At the central level the labour plan pursues several objectives. One of the foremost aims is to set the total volume of employment for the plan period, taking into account planned output and performance targets, and possible increases in the productivity of labour. Further objectives are the rational allocation of manpower to and between sectors, branches and regions. Rational utilisation of manpower according to skill levels and educational attainment, in relation to and on the basis of projected output and performance targets, is yet another objective. Lastly, the central labour plan must establish the appropriate total wage fund, taking account of employment growth, productivity gains and the aggregate allocation of resources to final demands (utilisation of planned national product for personal consumption, collective consumption, investment, and the foreign trade balance). These broad objectives are expressed within the labour plan by a set of mutually interdependent plans covering (a) employment and wages; (b) distribution and recruitment of manpower; and (c) training of skilled workers and demand for professional manpower educated at schools of higher education.

The employment plan is worked out for sectors, industries and regions, and the total number of employees is usually broken down into the two main categories of wage and salary earners.¹ To attract labour to expanding industries and branches *the wage plan* usually makes provision for increasing relative wage levels.

Plans for the organised recruitment of manpower usually cover only a fraction of the total workforce, and are limited to key industries in regions with acute and permanent manpower shortages. Under these schemes, the implementation of which is organised by the receiving enterprises and/or regional employment offices, workers from regions and sectors with sufficient labour supply are offered a contract for a fixed period, after which they can either remain in the new job or return to the previous place of residence and employment. Certain material incentives, concessions and fringe benefits, including provision of housing, are usually offered to induce workers to sign the contracts.²

Plans of training make provision for taking on youth after the school-leaving age for apprenticeship and other qualifying courses, and *plans of*

¹ In some of the eastern European countries the latter group has been—at least at some periods of planning—subdivided into engineering and technical personnel and administrative and clerical workers.

² See M. SONIN and E. ZHILTSOV: "Economic Development and Employment in the Soviet Union", in *International Labour Review*, July 1967.

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demand for professional workers specify the number of graduates from technical colleges and universities (according to broad fields of specialisation) needed for expansion and replacement of high-level manpower.¹

The labour plan itself is linked to some of the central economic "balances" which are worked out to achieve internal consistency between the respective parts of the plan's targets and limitations. With regard to manpower planning, the most important are the "manpower balance" usually worked out at the national and regional level, and the "employment balance". The former lists, for the year preceding the beginning of the plan and the last year of the plan-period, on the one side manpower availabilities, consisting of the population of working age and of persons still employed after the age of retirement, and on the balancing (utilisation) side the economically active (wage and salary earners, collective farmers and other co-operative members, and self-employed persons) and those not employed (mainly students and pupils of working age and housewives). The employment balance shows the number of employed persons at the beginning of the year, all additions to the workforce occurring during the year (mainly from schools and training institutions), all withdrawals from the workforce during the year due to natural losses, to school enrolment of previously employed persons and to other reasons, and the number of persons at the end of the year.²

The degree of integration of manpower policies with the over-all development plan has to be judged not only in relation to the construction of the plan, but even more so in relation to plan implementation. The tendency in all eastern European countries in the last decade has been in the direction of "more decentralised decision-making and greater reliance by the central government on incentives and indirect influence than on directives to subordinate bodies".³

However, the differences in the pace and scope of changes in the executive function of the plan have become so pronounced that in some countries⁴ not only has the binding character of most central plan indicators been abolished, but in many respects the previous disaggregation of central planning targets has ceased to exist altogether. Central planning targets in these countries have changed into a macro-economic framework which forms the basis for central economic policy decisions. Even these policy decisions, however, do

¹ For details see János TIMAR: "High-Level Manpower Planning in Hungary and its Relation to Educational Development", in *International Labour Review*, Oct. 1967.

² For details see "Manpower Planning in Eastern Europe", in *International Labour Review*, Aug. 1963, pp. 22-28, and J. TIMAR: "Long-Term Planning of Employment in the Hungarian People's Republic", in *ibid.*, Feb. 1964.

³ United Nations Economic Commission for Europe: *Economic Planning in Europe* (Geneva, 1965), Ch. VI, p. 2.

⁴ Yugoslavia, and in recent years also Czechoslovakia and to a large degree Hungary.

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not bind enterprises to fulfil a plan target handed down to them from the centre, but are rather a guide to the enterprises in following a course which will help to fulfil the broadly stated macro-economic targets.¹ While this is true for some of the eastern European countries, in others, including the USSR, the linkage of the central economic development plan with the enterprise plans through a hierarchical network of disaggregated targets (of a "compulsory" or "indicative" nature) is still to a certain degree upheld.

Technical progress, in conjunction with the generally increasing emphasis on the efficiency of enterprises has brought out the necessity of a redistribution of surplus manpower in many eastern European countries.² A relative manpower surplus in some establishments and areas contrasts with a more or less acute general labour shortage at the national level, so that the number of vacancies usually greatly exceeds the number of redundant workers or job-seekers. But the new phase of development demands new policies and new institutions. In the previous period of emphasis on industrialisation, the need was for a steady supply of suitable workers for new or expanding enterprises. The responsibility was mainly in the hands of the recruitment departments of the receiving enterprises and of the State Labour Reserves System set up to train youth after school-leaving age in special vocational training institutions.

Under the new conditions, the need to eliminate over-employment in some places and to effect improved manpower redistribution, has increased the importance of labour mobility. The measures needed in the interests of the national economy can become effective only if they are harmonised with the interests of individual workers.³ Hence, in many eastern European countries, some of the traditional functions of the employment service⁴ have been revived or extended. At the same time the activities of the bodies entrusted with these functions have been linked to responsibilities connected with manpower planning proper.

In the USSR, for instance, state committees for labour resources utilisation were established in each republic in December 1966, on the basis of the previously existing administration for organised recruitment of manpower and resettlement with branches in the regions and, where appropriate, in the larger cities and districts.

¹ The change may be described as one towards "planning by parameters", using price, tax, credit, wages and tariff policies to influence the actions of enterprises as opposed to "control through directives" (e.g. directives on quantities of particular factor inputs or on quantities of commodities to be produced). Cf. *Economic Planning in Europe*, op. cit., Ch. VI, p. 3.

² See M. SONIN and E. ZHILTSOV, op. cit., pp. 83-91.

³ See B. LEVČÍK: "Wages and Employment Problems in the New System of Planned Management in Czechoslovakia", in *International Labour Review*, Apr. 1967.

⁴ As defined in the ILO Employment Service Convention, 1948 (No. 88).

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The main responsibilities of the State Committee of the Council of Ministers of the RSFSR for Utilisation of Labour Resources, as stated in the decision of the Government dated 27 May 1967, are as follows:

- (a) formulation and implementation, jointly with ministries, departments and undertakings, of measures for workers' retraining and redistribution between enterprises, construction projects, branches and regions taking account of the needs of production;
- (b) placement of workers as well as information about manpower needs of undertakings and construction projects;
- (c) study of the structure of the able-bodied population not employed in social production, and to elaborate, jointly with the planning and economic bodies, proposals on the rational utilisation of manpower resources;
- (d) carrying out the organised recruitment of workers and the resettlement of population, supervising fulfilment by economic authorities of their obligation to ensure the necessary work, housing and living conditions for workers placed with enterprises and construction projects, and supervising resettlement of population in the new location;
- (e) participation in the preparation of draft plans for the location of new industrial construction with a view to the fullest and most rational employment of the able-bodied population in the economy, and in the examination of regional projects and general schemes for the development of towns as regards the employment of the population.

The establishment of these new committees is intended not only to broaden practical work in the field of manpower distribution and redistribution, but also to provide the general planning and economic authorities with a better basis for long-term planning and forecasting in many interdependent fields: education, training, distribution, redistribution and utilisation of the labour force. These committees will endeavour also to deal to a certain extent with problems of vocational orientation.

In Poland similar responsibilities are exercised by regional and local employment offices acting under the guidance of regional and local people's councils.¹ There is close collaboration between the regional planning commissions and the regional employment offices on long-term development programmes and in current economic decisions. In addition, the employment offices engage in individual job placement, occupational guidance, etc.

In Czechoslovakia, too, provisions to promote labour mobility and income security (including compensation in cases of the closing down of a plant, entitlement to earlier retirement payments, and retraining allowances) have been adopted or are in preparation.

Under all planning systems the essential differences between human labour and the material elements of production of necessity influence the mode of

¹ See ILO: *Legislative Series*, 1945—Pol. 3; also *Certain Problems of Labour Organisation in Poland* (Institute of Labour, Warsaw, 1962).

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plan implementation.¹ Even under a highly centralised directive planning system the state authorities have normally no power to direct individuals to specific workplaces; accordingly, implementation of the plan, even as regards recruitment of new labour, depends on material incentives to induce workers to take up employment where it is needed. Nevertheless, there is a great difference between the position of an enterprise under centralised directive planning where it receives from the central authorities, together with output targets, binding indicators on the permitted number of employees, on the planned average wage, and the planned wage fund, and the position of an enterprise in a decentralised setting operating largely according to market expectations and without any statutory limitations on numbers employed and on wages.

In the latter case economic instruments to influence relative wage levels and to guide the distribution of manpower between industries, branches and undertakings have to be applied. An interesting measure in this respect is a selective payroll tax (called a stabilisation charge) introduced in Czechoslovakia at the beginning of 1967. The tax is assessed both on increases in average wages and on additional manpower, the rates being more favourable where average wages increase than in the case of an expansion of the workforce. This reflects the needs of a general situation where labour demand exceeds the available supply. There are nevertheless areas and industries where there is no shortage of labour; in these cases tax exemptions on that part of the tax which is levied in relation to labour force increases can be granted; on the other hand additional taxes can be levied in areas with a severe labour shortage. The system is designed to bring about differential labour costs in the interest of manpower allocation without having to resort to unwarranted wage differentials.

In those eastern European countries where there are no planned compulsory limitations on wages and employment, negotiations in the form of collective agreements are gaining in importance. Collective agreements, while concentrating on wages, increasingly deal also with employment problems. Questions of the size of the future workforce of an enterprise, its skill composition, and provision for retraining (including material rewards for it) are all dealt with in negotiated agreements between the trade union organisation and the management of the enterprise.

¹ See "Manpower Planning in Eastern Europe", op. cit., p. 4.

Problems of adaptability of the labour force and measures to deal with them

3

Manpower adjustments to meet the changes described in Chapter 1 necessitate an ever-increasing adaptability of the labour force.

Workers already in the labour force have to be increasingly prepared to accept change—to move to other areas, industries or occupations and to undergo retraining. Young entrants to the labour force need to be educated and trained on a broader basis so that they will be able to make the adjustments which will be necessary during the course of their working lives. There may be need for shifts in the migration of workers from one country to another. In certain cases an easier and more effective adjustment to change may be achieved by relocation of employment. An important part of manpower policy in European countries is directed to these questions. The following chapters examine the major problems which arise in these various connections and the measures being taken to deal with them.

The release of manpower from agriculture

It has been seen in Chapter 1 that in many countries the release of workers from agriculture was an important factor in the growth of the labour force in other sectors in the decade 1950-60 and that in some countries this is expected to continue to be a substantial source of manpower for growing sectors. What problems arise in this transfer and what measures are used to deal with them?

Release of manpower from agriculture does not necessarily involve rural-urban migration; in some cases not even a change of residence. A survey carried out in France, on the basis of a small sample of male workers who had left agriculture between 1959 and 1964, showed that only 40 per cent moved from their commune and only 10 per cent moved out of the region;

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of those who moved, only 55 per cent migrated to urban areas and then mostly to towns with fewer than 50,000 inhabitants.¹ The mechanisation of agriculture and the rise in living standards both lead to the need for additional services opening up new employment opportunities in the rural areas; commuting is practised over longer distances than (say) two decades ago, partly owing to the increased ownership of cars and motor cycles, and partly to the practice whereby large undertakings collect their employees by bus over large country areas.

In certain countries, as for instance in Austria and in the Federal Republic of Germany, a considerable number of industrial establishments have been set up in central towns of rural areas, thus facilitating an industrial shift without change of residence. In the latter country it was estimated that in 1960, of workers living in rural communes, 45 per cent were commuters.²

In the USSR the process of urbanisation works to a considerable extent through the transformation of former rural settlements into urban ones as soon as they are sufficiently developed industrially and administratively. From 1959 to 1963 this transformation has embraced a former rural population of 4 million, the net rural-urban migration for the same period having been 6.4 million.³ The Government aims at reducing undesirable migration of rural populations by this means when the manpower requirements of agriculture are diminishing and such migration is not in the common interest. At the same time, this policy helps to solve the problem of utilising rural manpower resources more evenly throughout the year.

In many cases, however, such a solution is not possible. In Italy the movement of workers out of agriculture (in cases where it has not involved a direct move to a foreign country) has normally entailed a long-distance move to the big urban agglomerations. An Italian trade unionist has remarked that most of these "internal emigrants" turn their backs on the place where they were born and grew up, without any intention of returning, because they are convinced that elsewhere they will find a better society more capable of satisfying the expectations and needs experienced by all men.⁴

Moves of this kind impose considerable social adaptation problems on the individual and reception problems on the industrial centres.

In the western market economies the decline in the number of agricultural workers is in general more marked among family workers and wage earners

¹ See "La mobilité professionnelle en France entre 1959 et 1964" in *Etudes et Conjoncture* (Paris), Oct. 1966.

² *Agrarsoziale Gesellschaft Rundbrief*, Jan. 1961, Sep. 1961.

³ A. I. NOTKINA (ed.): *Struktura narodnogo khoziaistva SSSR* (Moscow, Izd. "Nauka", 1967), p. 161.

⁴ OECD: *International Joint Seminar on Geographical and Occupational Mobility of Manpower, Final Report* (Paris, 1964).

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than among the self-employed. In Spain during the period 1961 to 1964, transfers from agriculture affected almost as many as during the whole decade 1950-60; originally the principal migrants were wage earners but, since 1962, small landowners and their families have joined the exodus.

The aging of the farm population, while it has not yet generally had any markedly adverse effect on output, raises concern for the future in some regions. In some parts of southern France, in 1964, one-third of all farmers were 65 years old or over, and more than half were 50 or over.¹ In Czechoslovakia, between 1958 and 1965, the proportion of the agricultural labour force over retirement age (60 for men, 55 for women) doubled from 13.5 per cent to 27 per cent, and the proportion of young workers (15-19) fell from 7 per cent to 4.3 per cent; by 1965 workers under 30 represented only 15.5 per cent of the agricultural labour force. In Hungary also the problem of the aging of the agricultural population is reported to be acute. In Yugoslavia the situation varies from one region to another; in 1966 it was reported that in Slovenia and Vojvodina 31 per cent of all farms remained without any young people and that, in Slovenia, 20 per cent of all farm workers were over 60.

In the USSR during the past years the drift of young people out of agriculture has been higher than was foreseen and, as a result, the average age of the agricultural population in many regions is nearly 50. At the same time, the capacity of the towns for absorbing the rural surplus is limited. Special attention is now being given to expansion of services in the villages and extension of the network of vocational schools to give these young people the chance to acquire the specialised skills needed to carry out the present programme of agricultural modernisation.

In Bulgaria the plan for 1966-70 provides for a slackening in the rate at which agricultural workers are released for employment in other sectors and for incentives to retain young people in agriculture, such as better opportunities for agricultural training, wage bonuses for those holding diplomas and improved provision for holidays. In Czechoslovakia several measures have been taken to stop the outflow from agriculture and attract young people to this sector. The level of average earnings of co-operative farmers has risen substantially and health insurance and social security for agricultural workers are gradually being brought up to the level prevailing in industry. Other measures include the provision of rural housing and payment of special premiums to young people remaining permanently in agriculture. The introduction of new agricultural machinery is reducing manpower requirements, in both normal and peak seasons, and improving conditions of work; training

¹ OECD: *Geographic and Occupational Mobility of Rural Manpower*, in Food and Agriculture Documentation Series, No. 75 (Paris, 1965).

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is being organised accordingly. In Rumania the effect of the decline in the number of agricultural workers has been more than offset by better organisation and by a sharp increase in capital invested in agriculture.

In Yugoslavia there have been wide regional differences in the rate of withdrawal, as can be seen from table XVII.

Table XVII. Yugoslavia: number of persons leaving the farms (1949-1960)

| Republic | No. of migrants (in thousands) (A) | Natural increase (in thousands) (B) | (A) as percentage of (B) |
|-------------------------------|------------------------------------------|-------------------------------------------|-----------------------------|
| Bosnia and Herzegovina | | | |
| Bosnia and Herzegovina | 411 | 620 | 62 |
| Montenegro | 98 | 98 | 100 |
| Croatia | 375 | 310 | 117 |
| Macedonia | 160 | 165 | 96 |
| Slovenia | 160 | 89 | 180 |
| Serbia | 950 | 770 | 124 |
| Central Serbia | 662 | 530 | 118 |
| Vojvodina | 210 | 80 | 150 |
| Kosovo and Metohija | 78 | 160 | 44 |
| | 3 104 | 2 822 | 110 |

Source: Information supplied to an ILO study mission in 1966.

An increasing number of persons have work outside their farms, which often brings in more money than their farming activities.

In human terms one will not go far wrong in visualising the reduction of the agricultural labour force in most countries as resulting mainly from the fact that the death or retirement of older workers is not compensated by the entry of young workers; the shift out of agriculture of experienced workers in the 25-44 age group, who are mainly wage earners, plays only a minor role. For many years it was thought that exodus was selective of the more enterprising and more intelligent. However, a number of investigations suggest that many moves, for instance those to unskilled work in industry, do not rob agriculture of its better workers. The rising demand for technical and scientific knowledge in agricultural occupations may in fact lead to the retention of the more able elements of the population.

The effects on the agrarian structure and land tenure patterns are manifold. In the market economies the decline of employment accentuates the gradual trend towards the disappearance of tenancy, *métayage* and other forms

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of sharecropping contracts. It has also been a contributing factor in the increase of medium-sized holdings at the expense of small, inefficient holdings and (to a lesser extent) of large holdings where the loss of labour cannot be completely made up by increased use of capital (among countries where this latter phenomenon has occurred are Denmark, the Federal Republic of Germany, Ireland, the Netherlands and Switzerland). Taken as a whole, the reduction of the labour force has had a beneficial effect on agriculture, both in respect of better farm size and better mix of production factors, though the marginal farms are not always the first to be abandoned. Labour productivity has risen steeply, though the goal of income parity between agriculture and other sectors is far from being achieved.

Various governments have taken measures to ease the transition to a reduced agricultural labour force. For instance, in the Netherlands community self-surveys are conducted in which the farming population is brought face to face with its own problems of modernisation and re-allotment or enlargement of holdings. Guidance is then given, on the basis of a diagnosis of each farm family's situation, as to whether it is to the economic advantage of the farmer to stay on the farm or to move to some other economic activity.

In France a fund set up in 1962 to facilitate the "restructuring" of agriculture has, as one of its functions, to facilitate the movement of surplus manpower from agriculture into other sectors. It makes resettlement grants and loans to young farmers to permit them to give up uneconomic holdings and grants supplementary pension rights and a departure allowance to older farmers prepared to give up their holdings. Problems reported are that those who volunteer to move do not always come from the smallest holdings, that the aging of the farm population militates against technical innovation and that poor educational attainments limit the choice of new jobs for young people.

Workers leaving agriculture for industry do not in general seem to have any major problems in readjusting to industrial conditions. Case studies report individual difficulties in fitting in with the strict time schedule, higher absence rates and nervous tension due to the change from a life of fresh air and freedom, but for the most part workers approach the change as a step upwards in the socio-economic scale and have the will to succeed. In the Scandinavian countries, the Netherlands, Belgium and Ireland in particular, there seems to be virtually no problem, perhaps because a minimal change in cultural and social environment is involved. Sometimes there is a longer "running-in" period than for urban workers but cases are also reported of astonishing speed in learning industrial techniques.¹

¹ OECD International Joint Seminar on the Adaptation of Rural and Foreign Workers to Industry, Wiesbaden, 1965: *Final Report and Supplement* (Paris, 1965).

Other aspects of internal mobility of workers

The release of workers from agriculture to other sectors is one aspect of the topic of geographic and occupational mobility. Frequently, though not always, a job change involves one or more of the following changes:

- (1) change of domicile;
- (2) change of industry;
- (3) change of occupation.

In certain cases (2) and (3) are linked. There may also be a change of employment status.

Some of these moves are normal steps in a worker's career, of benefit both to him and to the economy; they do not imply an upheaval of any kind, or call for any outside intervention, either to encourage or to discourage the move. Some may be moves "in the right direction" from the point of view of the economy (for instance from a manpower surplus area to a manpower shortage area, from a declining industry to an expanding one, from a low-productivity industry or establishment to a high-productivity one) but may imply high costs or hardship for the worker; in these cases there may well be a need for government assistance. Others may be moves which the worker sees as in his immediate personal interest but which may run counter to the interests of the economy as a whole (for instance a move from an undermanned export industry into an overcrowded branch of entertainment, over-frequent job-changing leading to wasteful labour turnover, or cases of the "brain drain"); the principle of freedom of choice of employment excludes obstruction of these moves but it may well be considered that no steps should be taken which actively encourage them.

In many countries the statistical resources do not permit any attempt at measuring the volume of moves made by individual workers, and estimates are made on the basis of changes in the numbers of persons employed in given regions, industries and occupations over an intercensal or other period, with assumptions as to the direction of the flow between them.

In the USSR the problems of territorial movement of manpower arising from great distances, unequal development of different regions and national republics, as well as from the unequal natural resources and population of different areas, have always been considerable. Data are published on population flows from one region to another but in recent years these flows have been affected by a number of abnormal factors and do not provide a representative picture of the mobility of the labour force in response to manpower demands.

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Data are scarce in European countries as compared with the United States, where the phenomena have been systematically analysed over many years. On the basis of the data available for France, Germany, Italy and the United Kingdom, the OECD study *Wages and Labour Mobility* drew the broad conclusion that labour turnover was lower in these countries than in North America (an annual average of 30 to 40 separations per 100 occupied jobs, compared with 50 to 60 in the United States and Canada).

Two recent surveys in Great Britain and France¹ are of interest in relation to the nature of job changes. Both are based on schedules completed by interviewing representative samples of the population over 15 years of age to discover changes undergone over a particular period (ten years in Britain, five years in France; the French study was not concerned with geographic mobility). In both cases the results have been analysed from many different angles and they shed some light on job-changing habits in these countries and on some of the problems which arise.

Change of domicile

The British survey showed that employment-inspired inter-regional geographic mobility at any time during the lifetime of the informants had affected only about 8.6 per cent of the sample; moreover, although the net result of the movements was a flow from manpower surplus regions to manpower shortage regions, there were flows both in the opposite direction and between regions with about equal manpower. The net desirable redistribution effect of inter-regional mobility in response to manpower demand must have been very small indeed.² The survey also attempted to find out the attitudes of workers in the sample to possible future movement for work purposes; half of the men and three-quarters of the women workers said that nothing would encourage them to move for a job; the factors that would most influence the others who would consider moving were (a) pay, promotion and job prospects, and (b) the provision of good housing.

The extensive inquiry published by the High Authority of the European Coal and Steel Community in 1956³ also reported resistance to change of domicile in the countries studied, stemming from attachment to family, village clubs and established habits.

¹ A. I. HARRIS and R. CLAUSEN: *Labour Mobility in Great Britain, 1953-63*, Government Social Survey; and "La mobilité professionnelle en France entre 1959 et 1964" in *Etudes et Conjoncture* (Paris), Oct. 1966.

² It may be noted that between 1959 and 1963 an average of only 2,625 workers per year took advantage of government relocation allowances.

³ High Authority of the European Coal and Steel Community: *Obstacles à la mobilité des travailleurs et problèmes sociaux de réadaptation* (Luxembourg, 1956).

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Nevertheless, a proportion of workers do overcome this resistance and the resulting net geographic mobility is "in the right direction". It is, as one would expect, greater among the young and among those with higher educational attainments.

Change of industry

At first sight, mobility involving a change of industry would appear to be the form of mobility of greatest importance to the economy, since changes in the industrial distribution of the labour force are in most cases a more important element of structural evolution than changes in its geographic or occupational distribution.

Again, data are scarce. The French study already referred to found that, of those who were in the labour force both in 1959 and 1964, only 14 per cent of the men and 12.5 per cent of the women were in a different industry at the latter date. The British study revealed an industry change, over the ten years studied, varying from 20 per cent out of mining and quarrying to 44 per cent out of food, drink and tobacco manufacture. Both studies provide detailed analyses of the direction of inter-industrial moves which show that there are a large number of apparently haphazard moves in many directions though the long-term net mobility seems to be "in the right direction" for the economy as a whole. Flows do not seem, as might be expected, to be, directly from low-wage to high-wage industries. The OECD study *Wages and Labour Mobility* (on the basis of North American as well as West European data) found that "over-all, changing wage differentials appear to play a very small role in inter-industry movements of labour". Empirical studies in the United Kingdom have shown that, even within the same industry and the same area, firms paying higher wages have sometimes been less successful than others in recruiting staff, and reports from other countries in western Europe confirm that in present circumstances factors other than the current wage—for instance the "image" of the company and the prospects of career advancement it is believed to offer—are often more influential in attracting workers. This does not necessarily conflict with the view that, in the long run, manpower tends to flow into industries, giving them greater economic advantage but it suggests that the bidding-up of wages alone is unlikely to be successful in effecting a shift of workers to a particular industry or establishment. The general impression is that the existing volume of spontaneous job changes and the readiness of workers to change from one industry to another should be adequate for any redistributive function necessary; in fact in many cases it may be excessive. The main difficulty arises in redistributing surplus workers from declining industries, where a change of industry is not generally possible without an accompanying change of occupation and home.

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Change of occupation

The data regarding the extent to which workers at present change their occupation over a certain period are also meagre. However, the French study presents several interesting analyses of the results of the survey, firstly by occupational group and secondly by socio-occupational category. The mobility rate over the five years surveyed varied widely, ranging for men from only 3.1 per cent in health and personal service occupations, to 30 per cent in textile occupations (presumably reflecting the transferability or non-transferability of the skill involved and fluctuations in the demand for workers in the occupation concerned). The average mobility rate for manual workers of both sexes was 14.2 per cent (one-third being to non-manual occupations).

Analysis of change among men from one socio-occupational category to another gave the following ranking:

| Category | Average mobility rate (per cent) |
|----------------------------------------------------------------------------------------------|-------------------------------------|
| Commercial workers, labourers, farm workers | 29.0 |
| Office workers, semi-skilled workers | 19.8 |
| Skilled workers, foremen, middle management, miners | 15.6 |
| Craftsmen, technicians, service workers, primary teachers, farm proprietors, small trades | 10.4 |
| Engineers, higher management, industries and commercial proprietors, other professions | 5.9 |

The inverse correlation with skill level is also evident with women, though the differences are less marked. The majority of these moves represented progress up the socio-occupational ladder. The study also showed a tendency for males to become stabilised in their socio-occupational category around the age of 35. The study analysed the extent to which the growth of the respective categories was attributable to (a) net inward mobility, and (b) balance of "entries into" over "retirements from" the labour force.

New entries thus appeared to play a dominant role in changing the occupational structure, except in the management categories. An interesting case is that of the rapidly growing category of technicians, which drew its additions both from other categories and from new entrants.

The British study distinguishes movements between seven socio-occupational categories; the following table is interesting in showing both the limited volume of this movement and the fact that it was not one-way.

It was found that there was very little change of category among workers who remained with the same employer for the ten-year period (only 1.9 per cent of the men and 0.8 per cent of the women).

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Table XVIII. France: causes of growth in socio-occupational categories, 1959-64 (males)

| Category | Increase in employment 1959-64 | Contribution of net mobility | Contribution of new entrants over retirement |
|---------------------------------------------------------|--------------------------------------|------------------------------------|-------------------------------------------------------|
| Teachers, secondary and higher education | +27 800 | +4 000 | +23 800 |
| Engineers | +32 600 | +10 800 | +21 800 |
| Higher managerial staff, executives | +57 400 | +53 000 | +4 400 |
| Primary school teachers, medical and social services | +30 600 | -6 000 | +36 600 |
| Technicians | +110 000 | +41 800 | +68 200 |
| Middle management | +55 200 | +31 800 | +23 400 |
| Office workers | +4 400 | +25 200 | +69 200 |
| Commercial workers | +19 200 | -20 600 | +39 800 |
| Foremen, skilled craftsmen | +203 000 | +9 800 | +196 200 |
| Semi-skilled workers, miners, seamen | +157 000 | +4 400 | +152 600 |
| Labourers | +77 000 | +29 600 | +47 400 |
| Service workers | +11 000 | +23 400 | +23 600 |

Source: "La mobilité professionnelle en France entre 1959 et 1964" in *Etudes et Conjoncture* (Paris), Oct. 1966.

Table XIX. Great Britain: change of occupational status of men, 1953-63

| Occupational status group | Percentage of persons in group in 1953 remaining in or moved to another group by 1963 | | | | | | |
|----------------------------------------|------------------------------------------------------------------------------------------|----|---------|---------|--------|--------|----|
| | I | II | III (1) | III (2) | IV (1) | IV (2) | V |
| I. Professional and administrative | 94 | 2 | 3 | — | — | 1 | — |
| II. Managers, minor professional, etc. | * | 86 | 7 | 3 | * | 3 | * |
| III (1). Non-manual (upper group) | 2 | 10 | 76 | 5 | 2 | 4 | 1 |
| III (2). Skilled manual | 1 | 4 | 4 | 78 | 1 | 9 | 3 |
| IV (1). Non-manual (lower group) | — | 5 | 8 | 10 | 61 | 11 | 5 |
| IV (2). Partly skilled manual | * | 4 | 3 | 14 | 3 | 70 | 6 |
| V. Unskilled | — | 1 | 1 | 10 | 3 | 17 | 68 |

* Less than 0.5 per cent.

Attitude of the trade union organisations towards labour mobility

The attitude of the trade union organisations towards labour mobility inevitably varies from one country to another and from one organisation to the other within the same country. Examples of opposition are not unknown.

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For example the French CGT took the view a few years ago that mobility was a consequence and an instrument of capitalist concentration and accordingly could not be organised in the workers' interest.¹ More recently, at a discussion by the Economic Commission for Europe of a report on European manpower problems in 1967, presented by the ILO,² the representative of the World Federation of Trade Unions expressed the view that migration was not the answer to the problem of higher unemployment and that jobs should be taken to the workers, rather than the other way round.

The great majority of trade union organisations are not keen on mobility of labour and prefer mobility of jobs instead. This trade union attitude emphasises the fact that any policy of geographic mobility has fairly narrow limits beyond which not only the "human" costs involved, but also the economic costs make such a policy undesirable.

We consider that too little attention has been paid in the past to the problem of ensuring the mobility of jobs and that too much has been paid to the mobility of labour. We expect of an active manpower policy, that it should study the problem of geographical mobility, use such measures sparingly and, where possible, replace them by the movement of industrial plant or complexes.³

While the need for some mobility is generally acknowledged, the trade union organisations lay stress on the measures required to ensure that it is not detrimental to the workers' own interests. In a report presented to the Joint International Seminar on Geographic and Occupational Mobility of Manpower, organised by the OECD in November 1963, Pierre Jeanne (of the French Confederation of Christian Workers) stated:

Some mobility of manpower, both vocational and geographical, is an inevitable consequence of technical progress and is also necessary to economic growth. For trade unions representing unskilled workers, however, it is only defensible or possible if it respects and develops human values... Only democratic planning can meet the economic requirements of the development of industrial society and the spiritual needs of a democratic society.

Similarly, the notes prepared for the study committees of the Congress of the French Confederation of Workers in November 1967,⁴ contained the following statement:

...progress, which is essential to the maintenance of full employment in the medium and long term, implies a certain amount of mobility... It will be increasingly difficult in future to remain flatly opposed to any change and the only answer would appear to be to control and, above all, to organise this change in such a way

¹ *Obstacles à la mobilité des travailleurs et problèmes sociaux de réadaptation*, op. cit.

² ECE, 23rd Session, Item 4 of the Provisional Agenda.

³ Hermann BEERMANN: "The Trade Union Attitude Towards an Active Manpower Policy", in OECD: International Trade Union Seminar on Active Manpower Policy, Vienna, 17-20 September 1963, *Final Report* (Paris, 1964).

⁴ *Syndicalisme*, 9 Sep. 1967, Supplement.

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that it is not only acceptable, but beneficial to everybody and first and foremost to the workers themselves.

In the countries where geographic manpower mobility is seen to be essential to economic development, an attitude of scepticism tends to give way to a positive attitude of collaboration. For example the Executive Committee of the Italian Confederation of Free Trade Unions recently expressed the following view:

A high degree of geographical mobility of manpower is not a bad thing in itself; it is only an aspect and, to some extent, a consequence of a country's economic development. This does not mean that it cannot get out of hand or take place too quickly—to the detriment of the workers and the system itself; hence the need to follow developments closely and to plan various forms of intervention which might prove suitable.¹

A similar attitude is encountered in Sweden, where the trade union organisations recognise that economic and fiscal policies must be supplemented by an active employment market policy in which incentives to geographic mobility are bound to occupy an important place.²

The attitude of the trade unions towards occupational mobility also depends on their nature, e.g. the craft unions favour geographic or industrial but not occupational mobility, whereas the industrial unions encourage occupational mobility but not necessarily the other forms.

In Great Britain, when the Government decided in 1962 to double the number of places available in government training centres, a number of unions opposed this step, fearing that the high output of trained workers might cause unemployment among their members. Nevertheless, the TUC itself was in favour of an expansion of training facilities. In view of the increasingly technical character of many industries and the speed of structural change, the unions are usually conscious of the fact that full employment means greater occupational mobility and that, in order to maintain their workers' skills and wages, they must make every effort to secure in the long term higher standards of basic training for their members and, in the short term, more extensive facilities for training, rehabilitation and retraining.

Implications for mobility policy

The position appears to be as follows for the three main types of job change:

- (1) *those involving change of domicile* : in the absence of very strong incentives, the pool of workers in the more industrialised regions, particularly skilled

¹ *Politique Syndicale*, Feb. 1968.

² See for instance: L.O. i Sverige: *Arbetsmarknads Politiskt Program 1967* (Stockholm, 1967).

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workers, likely to respond to offers of employment involving a change of domicile is generally small; however, there are a number of workers, particularly in the younger age groups, who are ready to change residence for other reasons and who can sometimes be induced to accept employment in desired areas;

- (2) *those involving change of industry*: the existing volume of spontaneous job changes from one employer to another, or from one industry to another, is often sufficient to cope with any desired inter-industry redistribution so long as no change of domicile or of occupation is involved;
- (3) *those involving change of occupation*: in occupations requiring a specific skill or qualification (i.e. those occupations in which there are usually the most serious shortages), increased numbers result to a greater extent from the expansion of direct entry than from transfers from other occupations; as regards transfers from other occupations, skilled workers are reluctant to lose the investment they have made in their skill and are more likely to be attracted by occupational changes which promise to make some use of this skill.

Policy in relation to labour mobility has to take account of such considerations, as well as of the fact that high mobility is not an end in itself. When mobility is too high, there is an excessive rate of labour turnover which is wasteful of manpower; and many moves, though they could not be called instances of "excessive labour turnover" nevertheless do not form part of, or are even contrary to, the flows that are desired in the interests of economic growth.

In sum, how far can achievement of the necessary redistribution of manpower be left to spontaneous moves? Such moves seem to be fairly effective in respect of inter-establishment and inter-industry job changes within the same locality, though even here there is usually room for better organisation of the local employment market, whether through the public employment service or the local communications media. On the other hand, spontaneous moves cannot be relied on to bring about job changes entailing a change of domicile or of occupation; in the former case, even workers who in principle are not opposed to changing domicile have difficulty in doing so without reimbursement of their expenses and some assistance in finding housing; in the latter case, moves into occupations in which there is a shortage are seldom possible without some retraining.

It is sometimes asked whether the number of desirable spontaneous moves might not be higher in a situation of less-full employment. In some countries it is argued that if the unemployment rate rises, for instance from 1.5 per cent to 2.5 per cent, this not only releases more workers for transfer but also

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provides an incentive to workers to enter expanding areas of employment which promise greater stability; if that is so, it is asked, would not a deflationary policy which deliberately reduces the level of employment have a desirable "shake-out" effect?

A non-selective deflationary policy certainly results in the release of workers; and it may in certain circumstances lead to the release of workers who are surplus to the long-term requirements of the industry concerned, and thereby to higher labour productivity in that particular industry. But it does not necessarily induce workers to go where they are needed; mostly it is the least skilled, older or marginal workers who are released, that is to say precisely those who have the greatest difficulty in being usefully re-employed elsewhere during a period of generally declining demand for manpower, and who are least likely to meet the specific needs of employers with manpower shortages. One of the purposes of redundancy payments and income maintenance measures for those losing jobs is, of course, to give them more time to look around for fresh employment so that they do not have to take the first job offered but have time to consider, among such alternative jobs as may be open, which one will be most suitable in their particular case. Nevertheless, workers still in employment seem to have more success in obtaining a job which makes the best use of their skill and experience than those already unemployed.

In the centrally planned economies it has been the normal rule that fresh employment should be found for a redundant worker by his employing establishment before he is dismissed. In the market economies it has become an increasing practice for the reduction of personnel in larger undertakings to be carried out according to redundancy programmes, agreed between managements and workers' organisations, providing, *inter alia*, for early warning of redundancy and for assistance by the management, in conjunction with the public employment service, in putting redundant workers in contact with job vacancies elsewhere.¹

The most refractory problem in this connection in several European countries today is that of reallocating redundant workers from declining industries such as coalmining, shipbuilding, railways and textiles. In some cases the numbers are formidable and in most cases any re-employment would involve changes of occupation and domicile as well as of industry. Moreover, a high proportion of those affected are well over the age of 35. Additional complications exist in the case of coalminers in that they have a high sense of the dignity of their occupation and are reluctant to consider entering occupa-

¹ Arrangements in France, the Federal Republic of Germany, Italy, Sweden, the USSR and the United Kingdom are described in detail in *Labour and Automation*, Bulletins Nos. 4, 6 and 7, *Manpower Adjustment Programmes, I, II and III* (Geneva, ILO, 1967 and 1968).

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tions which they may previously have despised, and in that they are accustomed to wages well above the average. Moreover, it is asserted, they are more attached than most workers to their home environment. This accounts for the special emphasis placed in several countries (for instance, Belgium, France, the Federal Republic of Germany and the United Kingdom) on redevelopment in areas of colliery closure, with the object of sparing the redundant coalminer the most difficult of the three adjustments, a change of domicile.

If job changes needed by the economy and affecting the workers' domicile or occupation cannot in general be left to spontaneous moves, to what extent can they be induced by appropriate wage policies? In these countries where the government seeks to influence wage levels differentially, the need to attract more workers to an occupation is often one of the factors taken into account in authorising wage increases above the norm. While the response to differential wage increases does not appear to be direct or rapid, nevertheless in due course they are likely to have the effect of drawing more persons into the occupation concerned (many of whom are young new entrants, but some of whom transfer from other occupations). Mistakes have sometimes been made in the past in compressing differentials between wages for skilled and unskilled workers, so that there has been insufficient incentive to young persons to undergo the extra training involved in preparing themselves for skilled occupations in which there is a national shortage.

The subject of regional wage differentials in the USSR is discussed later.

In general, it appears that attempts to bring about occupational redistribution by manipulation of wage levels are successful only when supported by other specific measures, such as the organisation of special training courses related both to the forecast requirements in the occupations concerned and to the individual needs of the possible candidates, as well, in certain cases as by appropriate publicity campaigns.

Concurrently, action needs to be taken in regard to other obstacles in the path of desirable occupational mobility, such as the possible reluctance of established workers or their organisations to admit newcomers into their industry or occupation, the narrow basis of training given for certain occupations (which hampers future transferability of skills) and problems of the non-transferability of pension rights.

An increasing proportion of occupational changes are probably being made by workers within the undertaking which employs them, either by straight internal transfer, by internal retraining courses or by release for external retraining courses. The number of internal upgradings has always been considerable in undertakings in the public sector. Enterprises in the private sector in the market economies are also finding that the upgrading of workers already in their employment is often now a more effective way of filling

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vacancies, particularly those arising from technological change, than recruitment on the open employment market. Some managements are accordingly giving very serious attention to internal manpower planning but scope undoubtedly still exists, both in public and private undertakings, for more attention to be devoted to developing the employment potentialities of individual workers by career planning.¹

As regards job changes involving a change of domicile, it is increasingly recognised that these will not occur in sufficient numbers, and to the areas where they are needed, without strong financial and other encouragement. In some countries the burden of this encouragement falls to a great extent on the undertaking; in others it is accepted as a charge which falls on the economy as a whole.

Encouragement of geographic mobility

What can be done to increase the readiness of certain workers to contemplate moving to other areas? One step is to ensure that the employment market organisation is effective so that workers contemplating a move can get full information about specific jobs in the areas to which they are ready to go. Their local employment office, if they wish to use it, should assess their suitability, bring their applications rapidly to the notice of the employer, help them to travel for interviews and, if they are accepted, help them to travel to their new job, to find temporary accommodation, and later to move their home. The Federal Republic of Germany and Sweden are examples of countries where considerable importance is attached to measures of this kind.

Most governments provide financial assistance for geographic mobility. The OECD has recently carried out a comparative analysis of assistance provided in Belgium, Denmark, France, the Federal Republic of Germany, the Netherlands, Norway, Sweden and the United Kingdom,² summarising the trends as follows:

While at the start the plans tended to concentrate on travel assistance and aid to household removal, they were later liberalised to cover other costs involved in geographical mobility. As adult training programmes were introduced, financial assistance was also given to trainees who had to move to training sites. Eligibility requirements, moreover, tended to be liberalised. Loans and advances were gradually superseded by outright grants. Instead of flat sums, the amounts paid for family, starting and installation allowances became sufficient to cover actual costs of movement in individual cases. The programmes have become more realistic efforts to assure successful transfers.

¹ See for instance: *Perspectives in Manpower Planning*, Institute of Personnel Management, Edinburgh Group (London, 1967).

² OECD, Social Affairs Division: *Government Financial Aids to Geographical Mobility in OECD Countries* (Paris, 1967).

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Straightforward travel assistance to take up a job is generally given without insistence that the transfer should be from a depressed or labour surplus area to a desired reception area, but the more far-reaching forms of aid are mostly limited to designated areas, sectors or projects.

Unemployment as a criterion for eligibility is being replaced by concepts such as "affected by programmes for the restructuring of certain sectors" or "no early prospects of suitable and regular work in the home area". However, it is sometimes insisted that the worker must be going to a job unlikely to be filled by local workers in the reception area. The criteria are more flexible for the young and the disabled. A particularly welcome development is that assistance is becoming more widely available *before* unemployment occurs, as a worker who has just lost his job is seldom in the best psychological state to make a rational decision on whether or not to undertake a geographic move.

The total cost of this assistance in the countries mentioned is not usually high compared with expenditure on other employment policy measures. For instance, according to a study prepared for the United States Congress¹ this cost in Great Britain, from 1960-64, was £700,000 compared with £101 million for regional development measures. In Sweden, where in many respects this assistance is generous, the cost still represents a relatively small item in the total expenditure on labour market policy—in 1965, 27 million Swedish crowns out of a total of 935 million (the corresponding expenditure on regional employment promotion was 22 million Swedish crowns).²

It is interesting to note the conviction of the Swedish authorities that such assistance produces a high return for the outlay despite the fact that perhaps one-third of the transferred workers ultimately return to their home areas.

In the USSR the problem of territorial movement of manpower has always occupied an important place in economic and social policy, with special attention being paid to the problems of development in the eastern and northern areas of the country. The subject of material compensation and incentives for population resettlement has always been at the centre of manpower policy. The system of material incentives for resettling the labour force and sections of the population in general in new, intensively developing areas, includes the following main elements:

(a) compensation for expenses connected with migration;

¹ United States Congress Joint Economic Committee: *Programs for Relocating Workers used by Governments of Selected Countries*, Economic Policies and Practices, Paper No. 8 (Washington, 1966).

² UNIDO International Symposium on International Development, Athens, 1967: *Manpower Policy, A Swedish Example* (ID/CONF.1/G.71).

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- (b)* differentiation of wages and salaries favouring new developing regions;
- (c)* the ensuring of a higher rate of improvement in general living conditions in new regions;
- (d)* a special system of incentives for the far north regions.

To facilitate the migration and settlement of workers in new places, a special system of compensation is used. The legislation in force provides for five main cases of compensation:

- (a)* for those transferred to a new place of employment on the initiative of the management;
- (b)* for those transferred to new places on their own initiative;
- (c)* for those applying for new work;
- (d)* for young specialists who have graduated from higher or secondary specialised educational establishments;
- (e)* for those listed in *(a)*, *(b)* and *(c)* whose new place of employment is either in the same settlement or not more than 25 kilometres from this settlement.

These differences are connected with the fact that in some cases the legislation provides for compulsory payment of all kinds of compensation whereas, in other cases, the question of compensation is settled by agreement between both parties.

Usually the bulk of organised migration to newly developing and slightly populated areas involves persons already in employment. All workers who are transferred from one location to another in the course of change of employment are entitled to compensation which is borne by the undertaking to which the worker is transferred. The undertaking must also ensure that there are adequate housing facilities for newly recruited workers and provide opportunities for all types of training. There are variations in connection with some specific kinds of migration such as migration for temporary employment arranged by organised recruitment and agricultural migration.

Agricultural migration involves the resettlement of farming families and sometimes of whole collective farms from densely populated regions to areas with a low population density. These migrants receive special allowances, depending on the areas to which they move. All travel expenses, including transport of 2,000 kilograms of household goods for one family and cattle, are covered by the State. In new regions they usually receive considerable tax and credit benefits as well as other privileges for some years after moving.

One incentive used to encourage the migration of workers is a wage differential, expressed as a regional coefficient of the standard wage. The

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coefficient for a specific region depends on regional conditions of life and work, prices and the degree of labour shortage.

A special system of allowances is in operation for workers employed in alpine, desert and waterless areas, where the coefficient in table XX may be increased by 10 to 40 per cent. The basis for the application of regional coefficients is the existing wage or salary (excluding seniority payment and special additional payments in the far north) up to 300 roubles monthly.

Table XX. Regional wage coefficients in the USSR

| Regions | Regional coefficients |
|----------------------------------------------------------------------------------|-----------------------|
| The Urals, southern regions of west Siberia and Kazakhstan | 1.10-1.20 |
| Far eastern and southern regions of east Siberia, some northern European regions | 1.20-1.30 |
| Middle Asia | 1.15-1.30 |
| Regions assimilated to those of the far north | 1.30-1.50 |
| Regions of the far north | 1.50-2.0 |

Source: R. A. BATKAEV and V. I. MARKOV: *Differentsiatsiya zarabotnoi platy v promyshlennosti SSSR*, Izd-vo "Ekonomika" (Moscow, 1967), p. 184.

The regions with higher coefficients have at the same time higher labour turnover. Incentives for stability of employment in these regions play a similar role to incentives for mobility. The special seniority payments in these regions are higher. For example in the far north (and regions assimilated to the far north) there is a special seniority payment in addition to wages, multiplied by the regional coefficient. In these regions the workers of state, co-operative and public enterprises, institutions and organisations are entitled to the following increments:

- (a) in certain far north regions: 10 per cent upon completion of the first six months' work, with an increase of 10 per cent for each subsequent six-month period. The ceiling for total increment in these regions is 100 per cent of earnings of 300 roubles a month;
- (b) in other regions of the far north: 10 per cent upon completion of the first six months' work, with an increase of 10 per cent for each subsequent six-month period and, upon attaining a 60 per cent increment, 10 per cent for each subsequent year;

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(c) in regions assimilated to regions of the far north: 10 per cent after the first year's work, with an increase of 10 per cent for each subsequent year.

Advantages for those employed in the far north regions include other benefits relating to the duration of annual leave, old-age and sickness pensions, compensation for temporary incapacity for work, etc.

The bodies responsible for organised recruitment give wide publicity to vacancies in these regions, conclude employment contracts with applicants on behalf of enterprises, arrange their transport, provide services on the way and make a cash advance on behalf of the enterprise. From 1960 to 1966 over 300,000 workers were placed in the eastern regions by these arrangements.

Another channel for the resettlement of workers is that of public appeals by the Komsomol to young people to volunteer for development projects in these regions. From 1959 to 1965 about 100,000 young workers were placed through this channel.¹ Although this system is conceived as a service to society, the Government makes a grant, pays the cost of travel, makes a loan to assist in resettling the young worker's family and refunds family travel and household removal costs after two years. A report from the province of Irkutsk claims that the Komsomol appeal is the most effective way of supplying manpower and that between 35 and 40 per cent of workers who come through this channel link their lives firmly to the development projects and new towns, as compared with 10 per cent remaining in employment after seven years among those who arrive through organised recruitment or direct engagement.²

In Poland an incentive which has been used is a special bonus of 20 to 40 per cent of the basic wage paid during the period of construction of a new industrial centre (for example "Turoszow bonus"). This is paid until the industrial region is fully completed with all facilities such as housing, shops, schools, etc.

Housing as a factor in mobility

Although the acute housing shortages of the early post-war years have receded, in no country has the supply of housing risen to the point of meeting requirements.

Most studies on worker mobility list lack of housing high among obstacles to geographic mobility. In manpower shortage areas it frequently happens that such new or vacated housing as becomes available goes mainly to rehousing local residents, leaving little or none for the newcomer. Nor is it only a question of an over-all shortage of vacant housing but also one of differences

¹ *Komsomolskaya Pravda*, 18-22 May 1966.

² *Ibid.*, 31 May 1967.

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in rent. In many countries rent control measures favour the immobile worker, in that rents are pegged for the sitting tenant, who loses this considerable advantage if he moves somewhere else. In fact, it is unusual in such countries for a worker to be able to move to a job in another region without incurring a rise in rent.

The absence of suitable housing is not an absolute bar to movement and it has not stopped the influx of foreign workers to some of the most congested areas of western countries but it is clear that only the desire to save the maximum amount of money to send home makes them accept substandard housing.

Most studies from western Europe report that readiness to move is lower among house owners; this may be partly due to the fact that homeowners are likely to be older and more attached to their environment in any case, but there are also heavy costs in selling one house and buying another, particularly if it is a question of moving from a declining area, where house values are stagnant or falling, to an expanding area where they are rising.

If lack of housing is an obstacle to geographic mobility, what evidence is there conversely that the provision of housing is a positive inducement to mobility? When new regions are being developed, or new establishments set up, it is clear that the provision of good housing has been an essential element in the success of the operation (as for instance in the Oxelösund steelworks in Sweden and in developments east of the Urals in the USSR). What is not clear is the extent to which such housing influences the worker's decision to move. Moreover, it is worth noting that such housing provision can seldom be limited to the new workers whom it is desired to attract. In Czechoslovakia, when the Ostrava coalfields were expanded in the early post-war period, tens of thousands of dwellings were built to attract new workers; this was successful as an inducement but it gave rise to demands for similar housing from workers already there.

Linking of housing policy with mobility policy

In the centrally planned economies, unlike the market economies (where provision of jobs and the meeting of the consequent housing demand are the responsibility of different agencies and are often carried out with very little co-ordination), attempts have been made to balance the provision of housing with employment growth; in the USSR, perhaps more than anywhere else, decisions to develop or expand enterprises which will significantly increase the labour force in a given area are accompanied by special allocations to provide housing facilities. The enterprises themselves have a large degree of responsibility for providing housing out of their special funds.

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In addition, a considerable part of the incentive funds of enterprises (in particular, funds for social and cultural needs) which are derived from a proportion of production income and are controlled by the management in agreement with the trade union organisation, can be used to improve workers' housing conditions.

Restriction of newcomers' access to housing in congested cities may be used to support policies for limiting the growth of employment there. For instance, in Budapest newcomers can acquire housing only after five years' employment in the city.

The market economies have had greater difficulty in relating their housing policy to the needs of worker mobility, even in countries like the United Kingdom where a high proportion of total housing is publicly owned. The allocation of publicly owned or subsidised housing is mostly decided by local authorities using criteria quite distinct from those of manpower needs, such as length of residence in the area; while a certain allotment may sometimes be set aside for badly needed incoming workers, the allotment is seldom large. In Sweden the National Labour Market Board is pressing for an annual quota of 10,000 new dwellings to be reserved for workers needing to move for labour market reasons.

Rent control, as has been seen, has often operated against the interests of geographic mobility. Recently, however, there has been a tendency in some western countries to relax rent control and to allow controlled rents to rise so that there is a narrower gap between them and uncontrolled rents. An entirely free housing market is seldom either possible or socially desirable; but it has been suggested that a better distribution of available housing can result from allowing rents to rise to an economic level and subsidising those tenants who are unable to pay these rents.¹ Such an arrangement makes the housing market, and hence the employment market, more flexible; there is less incentive for a surplus worker to stay put and it is easier for him to find accommodation in areas where jobs are vacant. A more direct contribution of housing policy to labour mobility can be made by government encouragement of a higher rate of construction of low-rent housing in areas of expanding employment, having due regard to the provisions of the Workers' Housing Recommendation, 1961.

In some countries homeowners are helped to decide to move by the inclusion, in government financial aids to mobility, of provision for reimbursement of legal charges incurred in selling or buying a house. The Swedish authorities have in addition faced the special problem of the homeowner in

¹ A change of housing policy along these lines was in fact also adopted in Rumania towards the end of 1967, though not primarily with a view to facilitating the mobility of workers.

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a declining area who is unable to sell his house; the National Labour Market Board has experimented with a scheme to buy up such houses if this is the only way of getting the worker to move.

An entirely different consideration is that of the provision of temporary housing, primarily but not exclusively for single or unaccompanied workers. This often consists of communal quarters of a dormitory nature, with bare but perhaps adequate comfort. The Swedish National Labour Market Board has its own stock of prefabricated huts which can be put at the disposal of employers needing temporary accommodation for their workers. In addition, several countries have more substantial hostel accommodation. In Sweden, loans can be granted for the construction of "industrial hotels" providing one room, a kitchenette and a bath or shower for each worker (single workers or breadwinners awaiting the arrival of their families).

Temporary accommodation is of special importance in the case of foreign workers. In the Federal Republic of Germany employers recruiting foreign workers through the official agency have to guarantee accommodation, this being stated in the contract given to the worker in his home country. In Switzerland, since 1962, cantons have been urged to make the provision of housing a condition for approval of the employment of foreign workers; minimum standards of living space, sanitation and other factors are strictly enforced; where suitable accommodation is not available the cantonal authorities can transfer workers to other employers.

In some cases temporary accommodation is also suitable for the worker's family. There is, however, a danger that families may put up with overcrowding for the sake of being reunited and, particularly in France, this has presented serious problems for the authorities in the case of spontaneous immigrants.

Sooner or later foreign workers, if they are to be stable and increasingly valuable members of the labour force, need normal permanent housing for their families but they may have greater difficulty than local residents in obtaining it on the open market. Furthermore, with publicly controlled housing, they are under the same disadvantages as national workers coming from other parts of the country since allocation procedures take into account the length of residence in the area. Priority allocation of new housing to foreign workers (and it is sometimes the clandestine immigrants who are most in need of rehousing) would raise local opposition.

A mistake is sometimes made in thinking of housing allocation policy in terms only of new housing; in normal circumstances, most moves are into dwellings vacated by others rather than into new ones and the rate at which movement takes place within the existing stock of dwellings may be more important from the point of view of worker mobility than the rate of new

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construction. A more fluid housing market assists mobility and it may be just as effective to allocate a vacated dwelling to a newcomer as a new one.

Because migration itself tends to add to the imbalance between supply and demand on the housing markets in manpower shortage areas, manpower policies in many countries are being forced to give more attention than hitherto to the consequent housing needs.

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4

Regional development policy has a variety of objectives, many of which—physical planning, better communications, more even spread of educational, cultural and social benefits and of leisure facilities—are not the concern of this report.¹ However, in most cases there are employment objectives, and sometimes these dominate the others. Such objectives may be (a) to provide replacement jobs without change of residence for workers redundant through the decline of industries who cannot move elsewhere; (b) to provide jobs in areas where a manpower surplus exists or is foreseen, or to ensure a more favourable distribution of employment opportunities for women; (c) to counteract the possible inflationary effect of an excessive concentration of employment in the national capital or in other large centres; or (d) to facilitate the transfer of manpower from agricultural to other employment.

In the following pages, regional planning is discussed from this point of view in the centrally planned economies in eastern Europe, in the more industrialised countries with market economies, and finally in some of the less industrialised Mediterranean countries.

Centrally planned economies

In the centrally planned economies, according to an important school of thought, the human factor should, as far as possible, be treated as an endogenous variable to which all other variables (such as investment) should be adapted.² The problem is how far this ideal can be realised in normal economic conditions.

¹ For a discussion of these general objectives see Council of Europe, Consultative Assembly: *Report on Regional Planning, A European Problem* (Doc. 2832, 7 May 1968).

² See, for instance, M. SONIN: *Aktualnye problemy ispolzoraniia rabochei sily — SSSR* (Moscow, Mysl, 1965), pp. 7-8; L. LANDAU: *Wybor Pism* (Warsaw, 1957), p. XVII; K. SĘCOMSKI: *Podstawy Planowania Perspektywicznego* (Warsaw PWE, 1966), p. 278.

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In practice the following criteria are applied in allocating investment geographically: (a) achieving a more efficient utilisation of labour resources; (b) achieving fuller utilisation of natural resources; (c) achieving the maximum increase of output per unit of investment.¹

The labour factor plays an important role in investment allocation policy and the long-term programme of regional development is based mainly upon labour force projections, the regions with a high rate of increase of population and labour force being entitled to a higher share in the total investment fund. However, in current economic policy the second and third criteria may be in contradiction with the first. For example, a region rich in natural resources or with the highest economic efficiency may have a shortage of labour.

In order to overcome these difficulties the total funds available for investment are divided into three elements:

- (i) *investment tied absolutely (Ta)* — investment devoted to development of natural resources and allocated almost exclusively in accordance with the geographic pattern of natural resources;
- (ii) *investment tied relatively (Tb)* — investment allocated in accordance with economic efficiency and tied in relation to the existing economic infrastructure;
- (iii) *untied (or neutral) investment (Tc)* — investment which might be allocated in a number of regions with the same economic results; the main criterion for allocation of untied investment should be the employment situation.

“ Mobility of investment ” depends upon the proportion within the total investment funds of *Ta*, *Tb* and *Tc*. When the development plan assumes a high share of *Ta* the degree of “ investment mobility ” is relatively low. The experience of Hungary, Poland and the USSR has demonstrated that there is in practice a tendency to concentrate untied investment in industrial centres and developed agglomerations which may have a shortage of labour.²

The Council for Mutual Economic Assistance has adopted a recommendation to reduce the exaggerated growth of large cities. In the light of the common experience of seven of the countries, it concluded that congestion and inflated costs occur particularly in cities with over 300,000 inhabitants. Most of the countries of eastern Europe have taken steps to limit the growth of the large cities.

In combating the tendency towards investment in large agglomerations, which results in excess labour migration, three approaches are used: (a) plan-

¹ K. SECOMSKI, op. cit., p. 278.

² M. SONIN, op. cit., pp. 219-227; *Polish Economic Survey, 1965*, No. 11, pp. 22-25.

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ning of a more even distribution of investment between economic regions; (b) administrative restrictions against allocation of "neutral investment" to big towns and industrial centres; and (c) economic instruments such as payroll and employment taxes.

In the USSR, a distinction is made between three types of regions: (a) those with sufficient labour—the Centre, Volga, Ural and Baltic regions—where no special action is required; (b) those with a potential labour surplus—the Volga-Vyatka and Central Black-Earth regions, North Caucasus, Byelorussia, Ukraine, Moldavia, Transcaucasia and Central Asia; and (c) those with a shortage of labour—the North-West, West Siberia, East Siberia, the Far East and Kazakhstan. In the second type of region, other things being equal, preference is given to labour-intensive development and to the location of new industrial enterprises in small and medium-sized towns; in the 1968 programme of capital construction it was envisaged that about 60 per cent of major new projects will be located in such towns to make better use of local manpower reserves and to avoid undesirable concentration of population in large cities¹. In the third type of region emphasis is put on the selection of projects using labour-saving technology and not requiring the support of auxiliary industries.

Recently, in the preparation of long-term economic plans, new methods have been used to co-ordinate the manpower factor with other factors in planning regional development and the location of industries, especially new enterprises. Each industry and group of undertakings is studied from the point of view of its economic links with certain regions and location factors: (a) manpower concentration; (b) consumption of their production; (c) sources of raw materials; (d) fuel; (e) cheapest electric power. When compared with the expenses connected with relocation of manpower, this analytical approach makes it possible to find the best solution for the location of new enterprises.

In Hungary also, the measures to restrict investment in large industrial agglomerations have contributed to regional development. During the 1961-1965 plan period, the rate of increase of industrial employment in the development areas was raised by such measures to twice the national average and four times that of Budapest. For the 1966-1970 period, the rate of growth of industrial employment in areas such as Alföld and Transdanubia is planned at twice the national average, and the percentage of industrial workers located in the capital is to be reduced from 40.9 in 1965 to 38.39 in 1970. Under the new investment system which facilitates the fixing of over-all priorities for major investments and deciding their location, the Government will assume 20 to

¹ Some doubts have been expressed as to the economic efficiency of such a policy from the point of view of return on capital investments.

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50 per cent of the investment costs of new factories set up in the development areas, depending on the extent to which these will increase employment where it is most needed; the banks will grant longer-term credits for such areas; and the introduction of a land tax will encourage enterprises to select sites in the provinces rather than in the capital. It is envisaged that 100 establishments employing some 17,000 people will be evacuated from Budapest. Their depreciation and development funds will be blocked for financing the move and government authorisation will be necessary for any new industrial establishment in Budapest and its suburbs. A proposal has been made for a selective payroll tax with differentiated rates for four zones based on the degree of shortage of manpower.¹

In Czechoslovakia efforts have been made to increase job opportunities in areas where there are still available resources of manpower (mainly in certain areas of Slovakia and in frontier areas). Legislation may be introduced to create new employment in these areas by means of investment grants, differential taxation, differentiated prices of land, water and of some raw materials, organisation of training and construction of housing.

In Poland the perspective plan for 1966-1985 aims at creating 67 new centres of intensive industrialisation and 22 centres of medium industrialisation to accommodate, in all, some 800 to 1,000 industrial plants. Inter-regional disparities in the level of industrialisation will be further reduced as follows:

| Level of industrialisation | Employment in industry per 1,000 inhabitants | Number of provinces | | |
|----------------------------|----------------------------------------------|---------------------|------|------|
| | | 1956 | 1965 | 1955 |
| Low | 9-52 | 13 | 3 | none |
| Medium | 53-102 | 5 | 9 | 3 |
| Higher | 103-151 | 2 | 4 | 10 |
| Very high | 152 and above | 2 | 6 | 9 |

Source: K. SĘCOWSKI: "Na progu drugiego stopnia uprzemysłowienia", in *Nowe Drogi* (Warsaw), No. 5/1967.

In Rumania, one of the objectives of regional development policy is to reduce the need for internal migration. Total migratory movements were gradually reduced from 21 per 1,000 inhabitants in 1956 to 14.5 per 1,000 in 1964, and within this total there was a gradual decrease in the proportion of inter-regional moves.² As part of regional development plans, it is proposed to invest \$500 million in the tourist industry over the period 1967-1970.

¹ S. BALÁZSY: "Payroll and Employment Taxation and the Economics of Employment in Hungary", in *International Labour Review* (Geneva, ILO), May 1966.

² MURGESCO et al.: "Influences de l'industrialisation sur la mobilité sociale", in *Rerue roumaine de sciences sociales — Série Sciences Economiques* (Bucarest), Vol. XI, No. 1, 1967.

More industrialised market economies

Employment objectives play a dominant role in United Kingdom regional development planning. Up to 1939 policy in this connection was primarily welfare-oriented but since then the approach has been increasingly motivated by economic considerations: with full employment existing in most parts of the country it came to be held that further expansion of economic activity in congested areas would have an inflationary effect which could be avoided if expansion were steered to regions with unutilised manpower resources.¹ As from 1958 restrictions on industrial building in areas of full employment were more rigorously enforced, and investment incentives to employers were concentrated on areas with an unemployment rate over double the national average. In 1966, policy turned to (a) broadening of the geographic basis for redevelopment planning on the ground that a "growth point" situated in a district of full employment could have a favourable influence on a surrounding region short of jobs; and (b) increased attention to the whole infrastructure of the regions. Five broad areas of Great Britain were designated for regional development, and assistance has since been concentrated on these areas.² The battery of measures to encourage new employment has been extended and financial assistance has been increased despite general cuts in government expenditure.

The current measures include—

- (a) Checks on expansion elsewhere by control of building of industrial and office floor space.
- (b) Dispersal of public sector offices to parts of the areas short of office jobs.
- (c) Grants in respect of investment in new industrial plants (in 1968 45 per cent of capital cost incurred compared with 25 per cent in other areas) and grants for new building or extensions which provide fresh employment (25 per cent of cost or 35 per cent in special areas affected by colliery closures).
- (d) Provision of factories (some built in advance of demand) for sale or rent generally below commercial level, with a rent-free period of two years in cases of unusual initial expenses; where a considerable number of jobs is provided in special areas affected by colliery closures, the rent-free period is up to five years.
- (e) A regional payroll premium for workers employed in manufacturing establishments.

¹ See, for instance, T. WILSON (ed.): *Papers on Regional Development* (Oxford, 1965).

² Similar measures had already been taken by the Northern Ireland Government in respect of Northern Ireland as a whole.

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(f) Assistance in giving the training necessary to provide additional jobs, in the form of grants, loan of government instructors and provision of free places in government training centres.

It is too early to judge the effectiveness of the recent increases in these measures, as these were introduced at a time when manufacturing employment generally was declining. However, there is some indication that unemployment rose less steeply in these areas than it would otherwise have done, and that in the case of mergers involving concentration of production there has been a tendency (contrary to previous tendencies) to retain factories located in these areas. The policy has not gone uncriticised; it is hard on what are termed "grey areas", that is, other areas affected though to a lesser degree by similar problems; and it is opposed by some economists on the ground that it is "investing in failure" — that to locate industry artificially in uneconomic areas will make it less able to compete with industry in other countries where location is determined by market forces.

In the regional planning policy of France, better geographic distribution of employment opportunities is only one of many objectives. Nevertheless, emphasis is placed on the decentralisation of industrial employment, away from the congested Paris basin, particularly towards ten regions of the west and south-west. The policy of industrial decentralisation seems to have started to take effect about 1962-63; between 1954 and 1962 the growth of employment in the manufacturing industry had been higher in the Paris region than elsewhere; between the end of 1963 and the end of 1965 the changes were as follows: increase of 5.9 per cent in the west of France; increase of 1.3 per cent in the east of France; fall of 3.4 per cent in the Paris region.¹ The Fifth Plan provides that 35 per cent to 40 per cent of new jobs should be created in the development regions. The emphasis has shifted from prohibition of industrial expansion in congested areas to improvement of the power of attraction of development regions.² The regions do not in all cases coincide with those expected to have unused manpower resources although they do so in the case of Brittany, Languedoc and Midi-Pyrénées. The Manpower Committee of the Commissariat Général du Plan therefore recommended concentration of effort in the Fifth Plan on growth points within these three regions, namely at Nantes-Saint-Nazaire, Toulouse and Bordeaux, with special emphasis on the first of these three.³

¹ Projet de loi de finances pour 1968, annexe, in *La politique d'aménagement du territoire* (Paris, 1967), Vol. I, p. 95.

² "Aménagement du territoire en France" in *La Documentation française*, Notes et études documentaires, No. 3461, Feb. 1968.

³ Commissariat Général du Plan: *V^e Plan 1966-1970, Rapport Général de la Commission de la Main-d'Œuvre*, 1966, p. 227.

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Assistance measures include —

- (a) selective industrial development premiums¹ and industrial adaptation premiums for new establishments subject to a ceiling of 13,000 francs per job created and for extensions subject to a ceiling of 7,000 francs per job created;
- (b) tax reliefs and loans of various kinds;
- (c) decentralisation indemnities when industrial sites in the Paris region are vacated;
- (d) assistance with training and retraining;
- (e) assistance with the construction or transformation of industrial buildings and other specific aid negotiated in the case of large priority projects.

Serious problems also arise in connection with the decline of employment in the coalmining and iron and steel industries in the north and in Lorraine (conversion plans affect 102,400 miners in the former region, and 36,200 in the latter). Special "reconversion offices" have been set up jointly by the nationalised undertakings and the local authorities, and the former have set up companies to participate in conversion projects. However, the Manpower Committee suggests that some of the population may wish to migrate to regions with more attractive climates and countryside and that there is no objection to this, since there is no reason to perpetuate the industrial location patterns of the nineteenth century.

Although some success has been recorded with industrial decentralisation, employment in the services sector continues to expand more rapidly in the Paris region than elsewhere. The Manpower Committee estimates that one new job out of three in the services sector still arises in the Paris region, accounting for almost all of the increase of the labour force there, and this despite the imposition of licensing of extension of office space in the public sector since 1955 and in the private sector since 1958. Present measures to encourage decentralisation of office employment include, in addition to the licensing of office extensions:

- (a) credits from decentralisation and regional planning funds for the transfer of organisations in the public sector;
- (b) regionalisation of investments in new research or teaching establishments;
- (c) a grant to private employers in the services sector for investments involving the creation of at least 100 permanent jobs in desired areas.

In Belgium regional variations in unemployment are considerable owing to the geographic concentration of certain declining industries (in particular

¹ Decree No. 67939 of 24 Oct. 1967.

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metallurgy, mining, and textiles). Measures to attract industry to areas of higher unemployment include low interest rates, tax exemption, government financing of industrial buildings, and contributions to employers' expenses in selection, vocational training and resettlement of workers. In the first three-quarters of 1966, 7,500 new jobs were created, of which about 73 per cent were in the provinces of Limburg, Antwerp, East Flanders and Hainaut. In order to accelerate the conversion of certain areas, the Government introduced in 1967 more selective measures concentrated on certain regions—in particular, measures for rapid improvement and reorganisation of coal sites, immediate aid to miners hit by closures, and aid to economic expansion in particularly hard-hit areas.

In the Netherlands, in order to counteract the concentration of industry and commerce in the three western provinces, government policy has been directed towards dispersal of industry, primarily to areas with structural unemployment problems. In 1957 certain areas were designated to be industrialised as countervailing poles of attraction, using the following criteria: an average yearly emigration to other parts of the country of 6 or more per 1,000, and an expected shortage of jobs by 1961 equivalent to 3 per cent of the male working population. The programme for industrialisation of these areas involves three groups of measures: (a) those aimed at improving the general conditions for industrial establishment, in particular a coherent system of land and water communications; (b) those aimed at direct stimulation of industrial development (such as subsidies of half the price of the industrial site and a grant toward building costs); and (c) those aimed at improving residential conditions (state-subsidised workers' housing, improvement of the educational system, and other measures to increase the attractiveness of the areas). All measures apply the principle of concentration on "development nuclei". Since January 1965 policy has undergone slight shifts in emphasis from areas with the greatest structural unemployment to underdeveloped areas where industrialisation will have a reasonably rapid development impact. Some improvement in the distribution of industry is evident. Between 1950 and 1964 West Belgium's share of the total industrial labour force decreased from 44 to 39 per cent; the flow of migrants out of the underdeveloped areas has diminished and unemployment in these areas, though in some cases still above the national average, has dropped.

The primary aim of Italian regional development policy has been to raise the standard of living of the south and islands (the Mezzogiorno) and of certain depressed areas of north-central Italy nearer to the levels of the rest of the country. A secondary aim was to slow down population congestion in the Piedmont-Liguria-Lombardy triangle. In the early stages questions of any national advantage from fuller use of available manpower resources were not

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a major consideration. From 1950 to 1965, special government investment in the south through the Cassa per il Mezzogiorno went mainly to agriculture and improvement of the infrastructure (agriculture 56.1 per cent, infrastructure 22.4 per cent compared with industry 6.9 per cent and tourism 4.2 per cent). While this produced noticeable improvements in many directions it did not halt the widening of the gap between south and north (income per head in the south as a percentage of that in the north fell from 51.8 in 1951 to 46.2 in 1963). By 1965 it was recognised that investment in low productivity-growth agriculture was not the most effective use of resources and the five-year national economic programme 1966-70 proposed a markedly different distribution of investment (agriculture 24.4 per cent, infrastructure 21.7 per cent, industry 33.5 per cent, tourism 6.5 per cent). Moreover, it proposed that this investment should be concentrated on "global development zones".¹ The five-year programme set a target of 590,000 new non-agricultural jobs to be created in the south, representing 42 per cent of the national target, or an annual employment growth rate of 2.9 per cent compared with a national rate of 1.85 per cent and a rate of 1.3 per cent from the north-west. This is not envisaged as providing full employment for all persons resident in the region at the beginning of the period; in fact it assumes a continued loss of 330,000 workers through migration. The industrialisation component of the programme lays stress on the co-ordinated setting up of complementary industries in "industrialisation areas and nuclei" and counts on the implantation of large industrial enterprises attracting medium-sized enterprises with a high employing capacity. Agreement was reached in January 1968 between a number of public and private enterprises on synchronised plans for the development of metal-manufacturing and metal-using industrial establishments in the "Apulian pole" (the Bari-Brindisi-Taranto growth zone). Present measures will be continued or expanded, such as provision of investment grants, of risk capital, of longer-term credits, special transport tariffs, improved vocational training facilities, applied research facilities and management advice. All new projects of the state-participation industries are to be located in the Mezzogiorno or the depressed north-central zones unless there are strong technical reasons for doing otherwise.

In the Federal Republic of Germany special funds are devoted to improvement of the infrastructure in economically depressed areas (the eastern border areas, and the federal development areas and localities) and there are special loan facilities and fiscal advantages for the establishment of new enterprises and for the extension and modernisation of existing enterprises in these areas.

¹ *Gazzetta Ufficiale*, 14 Aug. 1967, Approvazione del programma economico nazionale per il quinquennio 1966-70.

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The criteria for selection of development areas are (a) gross product per head approximately 50 per cent of federal average; (b) industrial employment rate (number of industrial jobs per 1,000) approximately one-third of federal average; and (c) yearly migration in excess of 10 out of 1,000 inhabitants (these values were fixed so that development areas would not include more than 10 per cent of the total population). Localities are designated as prospective rural industrial centres for expansion into small and medium-sized towns. With the achievement of satisfactory levels of employment in these areas, measures have concentrated on consolidation and rationalisation of existing employment possibilities. Industrial concerns are now being encouraged to locate extensions of their activity in the Ruhr area to take advantage of the immobile manpower being released by the coalmining industry.

In Austria development areas are defined by two criteria: an unemployment rate more than 25 per cent above the national average, and a rate of tax return per head below 50 per cent of the national average. A survey between 1957 and 1963 showed that about 9,000 jobs had been created by the end of the period and that the enterprises were expected later to employ about 14,300 workers, representing about 2.5 per cent of the total industrial labour force¹; about one-third of these jobs were in lower Austria, another third in Burgenland--both provinces which had been affected by the decline of trade with neighbouring countries. The programme has been criticised on the ground that the incentives offered have tended to attract the less viable undertakings which have subsequently been particularly vulnerable to recessions.

The North Norway Plan of 1952 aimed at effecting a shift in the economic structure in the northern provinces from agriculture and fishing to capital-intensive industry, and one of its goals was the creation of steady jobs for about 10,000 persons; by 1960 this goal was reached to the extent of about half, the rest of the employment problem being resolved by migration.² In 1961 the programme was merged with a smaller programme covering lagging areas in other provinces. The measures used have been: substantial improvement of the infrastructure, loans, guarantees and tax reliefs (high depreciation allowances and tax-free accumulation of funds for investment in the regions).³

Sweden and Finland have similar problems in their northern areas. In the Swedish Government's view no good purpose is served by attempting to stop the migration of people from sparsely populated to densely populated areas and, in Swedish circumstances, it is considered cheaper and more effec-

¹ European Free Trade Association: *Regional Development Policies in EFTA* (Geneva, 1965).

² K. SCOTT WOOD: *The North Norway Plan* (Bergen, 1965).

³ EFTA: *Regional Development Policies in EFTA*, op. cit.

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tive to invest in the movement of surplus workers to employment opportunities in higher productivity areas than to attempt to bolster up employment in disadvantaged regions. Nevertheless, since 1965, assistance has been given for enterprises deemed economically sound and likely to provide lasting employment in centres having a population of at least 30,000 with a good industrial base and development potential. There have been appropriations for an experimental period of five years of 60 million kronor a year for grants and 100 million kronor a year for loans. In March 1968 a committee was appointed to evaluate this programme and to recommend the lines for its continuation after 1970.

The Finnish programme aims at reducing production costs in the development regions and works principally through tax reliefs, loans and loan guarantees. When certain state-owned woodworking, metal and chemical industries are established or enlarged, underemployment areas are chosen for the site of operation.

Less-industrialised southern European countries

The Mediterranean countries in general are confronted with greater regional differences of living standards and employment opportunity than countries to their north.

In Yugoslavia the income per head in 1963 ranged from 30.9 per cent of the national average in the region of Kosovo-Metohija to 191.4 per cent in Slovenia, and the country's underdeveloped regions present many of the obstacles to development found in the developing countries of other continents such as high rates of population growth and low rates of literacy. The 1966-70 plan aims at a growth rate above the national average for these regions through the development of agriculture, tourism and other natural resources, and through a federal contribution to the investment budgets of the regions in the form of low-interest loans for small-scale industries and other forms of labour-intensive activity.

Turkey presents a picture of a widening gap between its developed and underdeveloped regions with consequent excessive migration to the industrial centres. The regional planning division of the Ministry of Population and Reconstruction is carrying out studies of development potentialities in ten selected zones; new investments of state undertakings have been guided to these zones, and tax reliefs, long-term credits and in some cases grants are offered to private undertakings. A special investment of \$425 million in tourism is planned over the period 1968-72 for certain regions (it has been found that the investment cost per job created is particularly low in the case of tourism). Pilot projects for integrated rural development are being operated

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in a few rural areas with about 20,000 to 30,000 population and with particularly high rates of unemployment or underemployment.

Spanish regional development policy, as set out in the 1964-67 Plan, differentiates between two types of growth centre: (a) "poles of development" where an industrial base already exists—Coruña, Seville, Valladolid, Vigo and Saragossa; and (b) "poles of industrial promotion" where industry scarcely exists but which have potential resources and favourable conditions for the location of industries—Burgos and Huelva. Since the policy was adopted, 1,100 new enterprises with some 107,000 jobs have been established in these centres.

Concluding comments

Certain common trends in these various national programmes in all parts of Europe are evident:

- (1) Better integration of regional programmes with the over-all national planning effort.
- (2) Increase in the resources and effort assigned to the programmes.
- (3) Increased concentration of resources on selected growth zones or complexes, while recognising that for some depressed areas the better solution is to move workers out.
- (4) More selective use of a greater variety of incentives.
- (5) Increased appreciation of the importance of stimulating the improvement of vocational training and of the general educational and cultural infrastructure in the development areas.
- (6) Extension of measures from industrial employment to services sector employment, with special attention to preventing over-concentration of office employment in the capital.
- (7) Recognition that tourism can be a useful source of employment in regions otherwise offering poor employment opportunities.

Another general remark which is perhaps justified is that there is not as yet much firm evidence that the effectiveness of these measures is commensurate with the resources invested.¹ A good number of them are undertaken as "acts of faith" rather than as acts of rational planning decided on after careful prior analysis of the cost-effectiveness of different locations. Such analysis would of course present immense difficulties, particularly in assessing

¹ For a general discussion of this question see ILO: *Unemployment and Structural Change* (Geneva, 1962), pp. 157-164.

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the social costs of the alternative of moving a worker and his family, and assessing the benefits from fuller use of existing social capital (schools, hospitals, housing, etc.) which might lie fallow if an area were allowed to run down its working population. It is generally agreed, however, that some regional development projects have led to a waste of resources and that they have sometimes led to the building of unviable factories which, after meeting temporary boom demands, have been forced to close down. In most countries these policies are the subject of some criticism on the ground that they introduce distortions which lead to wrong economic decisions. On the other hand, it is not demonstrable that market forces necessarily lead to the best location of employment from the point of view of the economy as a whole.

The above discussion relates to measures within national frontiers, and the question arises as to how far comparable planning is possible internationally. This is certainly possible in frontier regions. Also, it is implicit in the Rome Treaty that the European Economic Community should envisage the manpower problems of the Community as a whole, and the European Investment Bank can grant loans and guarantees on a non-profit-making basis to facilitate the financing of projects for developing less developed regions. In general up till now, however, the location of employment among the market-economy countries has been left largely to the interplay of market forces under the influence of increasingly free trade. In the centrally planned economies, arrangements within the framework of the Council for Mutual Economic Assistance offer scope for intergovernmental planning of the location of employment mutually acceptable to the countries concerned within the framework of the Council's objective of a more rational international division of labour.

Developments in international migration for employment

5

Migration between the market economies

Although the rate of inter-European migration for employment is likely in the long run to diminish, it has been a considerable factor in the last 15 years in the economic growth of a number of the market economies. For countries facing a shortage of labour resources and low elasticity of domestic labour supply, immigration has been an important source of needed manpower. At the same time emigration has been a vital element in relieving tensions in countries where there are labour force surpluses.

Patterns of migratory movements have changed markedly since the Second World War. The traditional migration from European countries to overseas continents has steadily declined. Except for the well-publicised "brain drain", the number who now migrate to other continents in search of employment is not of great consequence to the manpower pool. For a number of years, migration into Europe from other continents grew in importance. Now, however, the overwhelming majority of transfers are taking place between countries of Europe itself.

Although reliable comparative statistics on migration are difficult to compile, a number of estimates are available from which prevailing trends can be established. The Economic Commission for Europe has estimated the number of migrant workers in western Europe in 1965 to have been approximately 5,380,000 of whom 4,330,000 were European migrants; of these, approximately 2,830,000 had migrated from southern Europe (1,500,000 from Italy, 675,000 from Spain, and 225,000 from Greece) and approximately 1,500,000 from other parts of Europe. Among the major receiving countries, France had approximately 1,400,000 foreign workers, the Federal Republic of Germany approximately 1,217,000, the United Kingdom approx-

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imately 1,200,000 and Switzerland approximately 750,000. On the basis of these estimates, foreign workers accounted for about 3½ per cent and foreign Europeans for less than 3 per cent of the total western European labour force. The proportions, however, were much higher in the major labour-importing countries: in Luxembourg and Switzerland for example, foreign workers have accounted for approximately 10 per cent of the labour force. The proportion of foreign workers has also varied greatly between economic branches and geographic regions: certain regions and industries in Belgium and the Federal Republic of Germany, for example, being particularly dependent on foreign labour. The Economic Commission for Europe also estimated that from 1960 to 1965 international migration may have contributed over 500,000 workers annually to the labour force of western Europe, which would almost equal the entire increase in the employed labour force of industrialised western Europe for that period.¹

The main flow has been from southern areas with surplus manpower in agriculture. The "pull" has been provided by the increased manpower requirements of the more industrialised countries, principally the Federal Republic of Germany, Switzerland, France and, to a lesser extent, Belgium, the Netherlands, the United Kingdom, Sweden and Austria. Until 1962 Italy furnished by far the largest share of European migrant workers: since 1962 the Italian share appears to have dropped from approximately 56 per cent to approximately 37 per cent. Emigration of workers from Spain increased from approximately 19½ per cent of the total migration in 1961 to about 25½ per cent in 1964 and then declined to about 21 per cent in 1966. During the period 1961 to 1964 emigration from Portugal, Turkey and Yugoslavia increased substantially; the increase of Yugoslav emigration has continued.

Factors involved in emigration

In Italy, during the 1950s, the Government took steps to facilitate emigration as a palliative to its manpower problems and emigration resulted more from the lack of employment opportunities at home than from the lure of attractive opportunities elsewhere. The manpower surplus was, however, considerably reduced as the result of international migration to Switzerland, France and the Federal Republic of Germany and of internal migration from the south to the north and in 1963 the Government declared a new policy based on the improved conditions and better employment opportunities inside the country. With continued economic growth it may be anticipated that emigration from Italy will continue to decline.

¹ United Nations: *Economic Survey of Europe in 1965*, Part I, Ch. 2, p. 78.

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In Spain, in spite of a period of steady and rapid economic development, the national labour market is still unable to absorb the surplus stemming from the demographic increase in the labour force, the excess workers who leave the agricultural sector, and the increased number of women seeking employment.

Turkey is an example of emigration pressures arising from a growing population coupled with inadequate growth of employment opportunities. With a rate of population increase of approximately 3 per cent per year, and with 77 per cent of the active population in agriculture, unemployment and underemployment are both widespread. Emigration is an important factor in dealing with the unemployment situation, and particularly with workers surplus to the needs of agriculture.

In regard to future trends in the supply of migrant labour, the countries of emigration continue to report the existence of considerable internal pressure for emigration. Forecasts indicate the availability of surplus manpower at least for the short run. For the longer term, emigration countries have forecast the progressive reduction of migration in the light of their projections of economic growth. It is reasonable to assume that this reduction will in fact occur, with the exception of Turkey, if its labour force grows at the rate anticipated in Chapter 1.

Factors affecting the demand for migrants

Inquiries conducted by the Organisation for Economic Co-operation and Development (OECD) indicate that, apart from periods of recession, most of the highly industrialised market economies anticipate a continuing need for immigrant labour. This includes Belgium, France, the Federal Republic of Germany, the Netherlands, Luxembourg and Sweden. Demographic trends and technological advances which improve productivity may eventually reduce the volume of these additional needs, but this cannot be counted on for the near future.

In addition to the needs arising from economic expansion, there is a need to fill vacancies left by returning migrants; in addition to the annual turnover of migrants employed in seasonal work hundreds of thousands of non-seasonal migrants return home.

The high turnover rate for migrants suggests that some of the disadvantages of recruitment of foreign labour may come to outweigh the advantages. Individual firms will have to take account of the costs involved in training and employing workers with a high rate of turnover. Countries with a high proportion of foreign labour may hesitate to expand production capacity on the basis of having to import additional quantities of unstable foreign labour; or they may react, for example, to the social disadvantages of accommodating a large immigrant labour force; or a large supply of relatively cheap labour

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may be felt to retard progress by inducing employers to postpone measures of rationalisation of production.¹

Even where the employment of immigrant workers presents economic advantages from the point of view of the individual employer, it may give rise to considerable incidental costs for the economy as a whole.² Switzerland has adopted a policy of progressively restricting the total numbers of immigrant workers and at the same time of assimilating stable elements which have worked in the country for a number of years. It is not impossible that other countries may likewise reduce their demand for foreign workers. The Commission of the European Economic Community in its report for 1967 on the free movement of workers within the Community pointed out that the trend of increasing demand for foreign labour which had existed since 1961 was diminishing.

Impact on countries of immigration

There can be little doubt that immigrant workers have made important contributions to higher rates of economic expansion in the receiving countries. Among other things they have alleviated labour shortages, permitted fuller utilisation of productive capacity, and modified the pressures that would otherwise have led to wage and price increases. They have frequently been ready to accept types of work which nationals were no longer willing to undertake. A further factor of some importance is the adaptability of foreign labour to the changing needs of the economy. With the domestic labour force more or less fully committed, foreign labour plays an important role as an available and flexible labour reserve.

Within this broader framework, however, numerous questions arise concerning the adaptation of foreign workers in their new environment. The additional costs incurred by industry because of an untrained or unstable labour supply have already been mentioned; other difficulties arise because of language barriers.

Different measures would in theory be appropriate for temporary and permanent immigrant workers but, at the beginning, it is by no means clear whether an immigrant is likely to be temporary or permanent. Surveys indicate that most migrants, at least initially, tend to regard their migration as temporary. However, as a result of working abroad they acquire expecta-

¹ See United Nations: *Economic Survey of Europe in 1965*, Part I, Ch. 2, p. 82. The alternative is to invest in labour-saving capital goods, which has in fact occurred.

² See, for instance, I. SVENNILSON: "Swedish Long-Term Planning—The Fifth Round", in *Skandinaviska Banken: Quarterly Review*, 1966:2, in which it is argued that the investment needed to provide capital equipment and dwellings for additional immigrants would be more effectively utilised in raising the productivity of workers already in the country.

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tions of higher earnings and greater financial independence than they may be able to achieve back in their home country. The experience in this regard varies among the various national groups. Among Italians, many workers emigrate and return home several times, and in general the rate of repatriation tends to be high. The newer immigrants from other Mediterranean countries have a somewhat lower rate of turnover, but this is probably due to the continuing lack of employment opportunities in their countries of origin. A survey conducted in the Federal Republic of Germany in 1963 seemed to confirm that the tendency to return home among Greek and Spanish immigrants was less than that of the Italians.

Although some countries encourage the integration of young migrants and their families for demographic reasons, most countries prefer to avoid arrangements which would limit their ability to reduce the foreign labour force in the event of an economic downturn. Foreign labour is seen for the most part as an available, but flexible, labour reserve.

Impact on countries of emigration

The benefits of emigration accruing to the labour-exporting countries are: (a) a fall in the cost of supporting the unemployed and underemployed; (b) a reduction of labour surpluses; and (c) the remittances and repatriated savings of emigrants.

A large percentage of migrants come from the less developed rural areas and this contributes to reduction of the manpower surplus in overpopulated regions. It is likely that in the absence of emigration the exodus from the rural areas, at least in the early stages, would simply increase the crowding and unemployment in the cities. Furthermore, the reduction in surplus labour removes an important obstacle to the rationalisation of agricultural production and leads to a rise in the marginal productivity of capital and to improved incomes in the depressed rural areas.

These advantages may, however, be offset by a number of disadvantages. Experience indicates that emigration is selective in regard to age, and that it is frequently the young and vigorous who emigrate to the detriment of the demographic characteristics of the remaining population. There are also cases of decongestion of the rural areas to the point of total abandonment of the countryside. But in general the impact of emigration has been favourable. A related question is the claim that the opportunities abroad attract the skilled workers rather than the unemployed and unskilled; however, information from immigration countries seems to show that the great majority of workers recruited are unskilled.

There are advocates in the countries of emigration of a policy of repatriation as a means of extracting as much value as possible from migration.

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Migrants should return "rich in experience, skilled, with capital to invest". It may be observed, however, that workers who migrate with no prior occupational training seldom find skilled jobs abroad and it is unrealistic to expect them to acquire much in the way of skills or entrepreneurial know-how. Emigrants do sometimes return with some capital, new ideas and improved work attitudes which may be of use in their home country but studies carried out by the Council of Europe and by the OECD suggest that in general returning migrants make little special contribution to the development of the local economy to which they return.

These considerations have influenced emigration policy in a number of important respects. In the light of their immediate problems countries have followed different paths. Some are attempting to reduce what they consider an excess of emigration. In Greece the official view is that emigration has exceeded desirable limits and should be restricted in numbers and combined with a policy of repatriation. In Italy there is considerable sentiment for the speeding up of economic development at home so that available manpower can be utilised inside the country and steps have been taken to make it less attractive for workers to emigrate. Spain would like to control the flow of emigration to facilitate movements from the underdeveloped regions and to avoid the drain of workers from the developing areas. Turkey plans to create disincentives to the emigration of skilled workers.

There is a visible desire for increased control of emigration in all of these countries. There is also a distinct tendency to favour repatriation of emigrants as a means of utilising their acquired skills and experience. This has involved the adoption of more active programmes for the preparation and training of emigrants before they depart in order to maximise their opportunities abroad, and the improvement of reception centres at home to facilitate their return. Particular attention has been given by Turkish authorities to repatriation policy. Measures have been taken by the Government to encourage the repatriation of savings and to induce their investment in Turkey by providing favourable exchange and interest rates; assistance is offered to returning migrants for housebuilding and establishment of small enterprises; credit facilities and other advantages involving state participation are extended as well to facilitate the formation of joint stock companies and co-operatives which would provide employment to emigrants who return.

Migration between the centrally planned economies

In the centrally planned economies corresponding availabilities of surplus manpower do not exist, although there are differences of manpower stringency

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between the different countries. In Czechoslovakia and eastern Germany labour is in general very scarce. In Bulgaria, Hungary, Poland, Rumania and the USSR shortages exist in particular categories and in particular regions (for instance Poland, a country relatively rich in manpower resources nevertheless has on average four notified vacancies for every male job applicant registered). International co-operation in manpower fields is therefore not treated as an instrument for solving manpower surplus but as an integral part of over-all mutual assistance among the countries belonging to the Council for Mutual Economic Assistance. The movement of labour is associated with other economic objectives such as training, technical assistance or dissemination of advanced technology, and the long-term manpower aspects are taken as one of the criteria for international division of labour. This may mean that "the labour intensity of the various economic branches could, for example, be included among the criteria for determining specialisations".¹

In 1967 Bulgaria and the USSR signed an agreement for the establishment of two Bulgarian timber enterprises in the autonomous Soviet Socialist Republic of Komi.² Under this agreement the USSR provides the equipment, machinery, instruments, etc., for these enterprises, and Bulgaria supplies about 3,000 workers (including engineers, technicians and managers) to run the enterprises. These two enterprises are to produce for Bulgaria about 500,000 cubic metres of first-class timber for the furniture, cellulose and paper, and woodworking industries.

Under another bilateral agreement Hungarian workers are employed in eastern Germany, mostly in the electro-technical and machine-building industries for a period of two years; they will be trained in advanced methods of engineering and will then be offered jobs in this field in Hungary.

Under other agreements about 1,500 Polish workers, engineers and managers are employed in Czechoslovakia and more than 2,000 in eastern Germany, all in Polish enterprises building industrial plants, or pipelines, or developing brown coal output. The workers receive training in advanced technological methods. In accordance with tradition, about 8,000 Polish frontier workers (67 per cent women and 33 per cent men) are employed in Czechoslovak enterprises. An agreement has also been signed with eastern Germany whereby about 1,500 Polish women are employed in the border region. The enterprises are required under all these agreements to set up suitable training facilities. Free medical care is given and income tax is transferred to Poland.

¹ United Nations: *Economic Survey of Europe in 1957*, Ch. VII, p. 51.

² *Rabotnicheskoe delo* (Sofia), 4 Dec. 1967.

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The "brain drain"

A special aspect of the question of economic loss resulting from emigration is that of the "brain drain". This only affects the market economies.

The migration of high-level personnel from one European country to another does not seem to give rise to concern. In fact, most countries appear to welcome freer movements of high-level personnel, partly because it permits the cross-fertilisation of ideas and partly because it may lead to a more unified approach to science and technology. Indeed, the concentration of talent in one or two centres (such as the European Centre for Nuclear Research in Geneva) is welcomed as a means of creating a pole of counter-attraction to North America.

It is the flow from western Europe to North America which gives rise to concern and, though accurate data are not available, it seems that this flow is accelerating and involves a real loss to the countries of origin. Here, it is the industrialised countries of western Europe which are the main losers. For the United Kingdom and France this is to some extent compensated (particularly in the medical profession) by an inflow from other continents.

An attempt has been made to estimate the rate of outflow of scientists and engineers from Europe to the United States over the years 1956-61 despite the difficulties relating to the sources and the different criteria by which migrants may be counted as "scientists" or "engineers". Extracts from these data are presented in table XXI.

Other data show that at least half of the scientists and engineers who immigrated into the United States in the period from 1962 to 1964 had been born in Europe (table XXII).

The losses experienced by the United Kingdom are the most richly documented.¹ The estimated number of British and Commonwealth engineers, technologists and scientists emigrating from the United Kingdom (overwhelmingly to the United States, Canada and Australia) totalled more than 26,700 during the six years from 1961 to 1966. The number rose from 3,220 in 1961 to 6,215 in 1966 and appears to have continued to rise since then. A detailed analysis shows that between 1961 and 1966 the annual outflow of scientists rose from 1,300 per year to 1,975, the rate of loss remaining more or less stable, ranging between 20-23 per cent of the new additions to the total stock of scientists during that period. As regards engineers and technologists, the outflow, which in 1961 was 1,920, representing approximately 24 per cent

¹ See, especially, Committee on Manpower Resources for Science and Technology: *The Brain Drain. Report of the Working Group on Migration* (London, Oct. 1967) from which the data are taken.

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Table XXI. Outflow of scientists and engineers from Europe to the United States, 1956-61

| Country of last permanent residence | Immigrants into United States (annual average 1956-61) | | | Immigrants as a ratio of 1959 output of science and engineering graduates (percentage) | | |
|-------------------------------------|--------------------------------------------------------|-----------|---------------------------|----------------------------------------------------------------------------------------|-----------|---------------------------|
| | Scientists | Engineers | Scientists plus engineers | Scientists | Engineers | Scientists plus engineers |
| Austria | 23 | 43 | 67 | — | 10.9 | 7.6 |
| France | 26 | 56 | 82 | 0.5 | 1.2 | 0.9 |
| Germany, Fed. Rep. | 124 | 391 | 425 | 6.0 | 9.8 | 8.2 |
| Greece | 14 | 50 | 64 | 3.6 | 20.7 | 10.2 |
| Ireland | 13 | 32 | 45 | 4.7 | 15.4 | 9.3 |
| Italy | 29 | 42 | 71 | 0.9 | 1.7 | 1.3 |
| Netherlands | 34 | 102 | 136 | 7.9 | 21.8 | 15.1 |
| Norway | 6 | 72 | 78 | 3.4 | 23.8 | 16.2 |
| Sweden | 8 | 97 | 106 | 1.3 | 16.3 | 8.8 |
| Switzerland | 38 | 96 | 134 | 10.6 | 22.4 | 17.0 |
| United Kingdom | 155 | 507 | 661 | 2.6 | 17.2 | 7.4 |
| All European countries | 549 | 1 584 | 2 333 | — | — | — |

Source: E. M. FRIDLUND: "The Research Effort of Western Europe, the United States and the USSR", in *OECD Observer* (Special Issue on Science), Feb. 1965.

Table XXII. Scientists and engineers entering the United States as immigrants, by country or region of birth—extract

| | 1962 | | 1963 | | 1964 | |
|----------------|--------|---------------------------|--------|---------------------------|--------|---------------------------|
| | Number | Percentage of world total | Number | Percentage of world total | Number | Percentage of world total |
| Europe | 2 431 | 56.6 | 3 002 | 50.6 | 2 982 | 51.8 |
| United Kingdom | 925 | 21.5 | 1 153 | 19.4 | 1 175 | 20.4 |
| Germany | 356 | 8.3 | 428 | 7.2 | 491 | 8.5 |

Note: "Scientists" includes social scientists.

Source: National Science Foundation: *Scientists and Engineers from Abroad* (Washington, D.C., 1967), p. 5.

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of the number added to the total stock, rose to 4,240 in 1966 or approximately 42 per cent of the new additions.¹

The concern has not only been with quantity. In the United Kingdom and in other European countries it is felt that the quality of the emigrants has tended to be very high. Another disturbing feature is the knowledge that North American demand is growing. It was estimated by the United States Engineering Manpower Commission that during the next decade 830,000 new graduates will be needed in engineering alone, of which only half will be home grown.² The living conditions in the United States and the level of salaries paid are factors of attraction, but the main incentive is generally considered to be the much better research facilities and the more challenging professional opportunities available; moreover, this incentive is cumulative in the sense that the continued inflow of talent will only serve to widen the technological gap and hence to increase the power of attraction to potential emigrants.

Widely varying estimates are made of the loss of social investment entailed by this outflow. In Switzerland, where it is held that between 12 and 16 years of training are required to produce a graduate scientist or engineer, the social investment is estimated to cost the community an average of 200,000 Swiss francs. In the United Kingdom the cost of educating a typical graduate in science and engineering (after the minimum school-leaving age) was recently estimated to be £6,000 and that for a postgraduate in physics to be £16,000.³

Estimates of the value to the United States and Canada of the immigration of high-level personnel point up its importance. During the 13 years from 1949 to 1961 the inflow of human capital value to the United States of immigrant scientists and engineers was calculated at \$1,055 million,⁴ and amounted to \$144 million in 1957, the peak year for the period. Canada, between 1953 and 1963, was receiving professional personnel at an average annual value of \$37 million but was losing a portion of this to the United States at a rate equivalent to \$20 million per year.⁵

It is even more difficult to assess the long-term loss to the European countries affected which may result from this talent no longer being available to improve their own technologies. In some cases no loss is involved: concen-

¹ Committee on Manpower Resources, *op. cit.* The percentage losses for the years given were actually measured against the additions to the supply three years earlier. Thus, the percentage losses through emigration for 1966 are by comparison with those added in 1963.

² *The Times*, 11 Oct. 1967.

³ Committee on Manpower Resources for Science and Technology, *op. cit.* The figures are at 1964 prices. Estimates at present levels would be higher.

⁴ H. B. GRUBEL and A. SCOTT: "The Immigration of Scientists and Engineers to the United States, 1949-61", in *Journal of Political Economy*, Aug. 1966, pp. 370-371.

⁵ Louis PARAI: *Immigration and Emigration of Professional and Skilled Manpower during the Post-War Period* (Economic Council of Canada, Ottawa, 1965), pp. 79-83.

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tration in North America of human resources for pure research leading to results which will be available to the whole world may in some cases be a rational division of labour; but, in regard to applied research, it may be thought likely that the brain drain will make western European industry fall further behind in technological innovation. In papers presented to a meeting of science ministers of the OECD countries in March 1968 it was suggested that the technological gap between western Europe and the United States may have been due not so much to a shortage itself of scientists, engineers and technologists as to the unsatisfactory planning and poor utilisation of research work by governments and managements which led to this outflow. Inadequate status, insufficient material support and encouragement and ineffective application of their findings are in fact often quoted by scientists and engineers themselves as their reasons for emigrating. It seems that the most promising remedial measures both for the widening technological gap and for the brain drain may lie in the better planning, better material support, better management and better exploitation by western European governments and industry of their science and technology research programmes measures lying mostly outside the competence of the ILO.

Developments in the field of education and training

6

Recent developments in education

Any attempt to analyse or to show the pattern of developments in the fields of vocational training and vocational orientation and guidance must first apply the same analytical process to the educational structures of the countries or region being considered. It is these structures and the conception on which they are founded which provide the framework for the organisation and content of vocational training and which largely determine the needs and priorities for different types of youth training and training for adults.

The immediate post-war years and the early 1950s were intensely active as regards educational reform in Europe, and the movements have continued into the 1960s and gathered momentum. Broadly speaking, they have had four objectives:

- (a) to reach the greatest possible percentage of the school-age population;
- (b) to raise the standards of education attained by the different groups and strata of population;
- (c) to enable each child to attain the highest level of education of which he or she is capable;
- (d) to give each adolescent as good a preparation as possible for entry into the labour force and, at the same time, a grounding which will facilitate further training and education later on.

To achieve these objectives several lines of action have been followed, either singly or in conjunction: prolongation of compulsory schooling, massive school building programmes, critical examination and reorganisation of the existing educational system, overhaul of school syllabi, re-allocation of responsibilities for education and training, and reorganisation of the administrative structure of education. Two of the above—prolongation of schooling and the content of education—are singled out here for brief discussion because of the profound effect they have had on training policy and practices.

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By the end of 1967 few European countries had a duration of compulsory schooling fixed at less than eight years: for some it is ten years. In most countries the minimum school-leaving age is at least 15 years. But more important than the trend to prolong the period of compulsory schooling is the parallel tendency towards a voluntary prolongation of education. This itself is the result of the increased popular demand for more education and also, probably, of the general economic prosperity which has made the additional income of the adolescent worker less necessary to the average family budget. To a large extent the chief obstacles to a more general application of longer schooling have been purely material and practical: lack of funds to build and equip the schools, and a universal and chronic shortage of teaching staff.

One of the immediate implications of prolongation of schooling has been recognition of a need to review school curricula, in particular the syllabi for the final year(s). Some employers have seen the prolongation simply as a measure which will shorten the time available for initial or basic training without giving either the employer or the adolescent a real benefit in exchange. There has been general concern that the extra year or years should not be a period of marking time but should be an active agent in preparing young people for their entry into the "world of work".

Consequently, most of the educational reform movements of the past 10 to 15 years have been dominated by the need to give education a more practical bias. This is particularly evident in the system of "polytechnical education" which was introduced in the USSR at the end of 1958 specifically to "reinforce the links between education and life" and was subsequently adopted, sometimes in a slightly modified form, in most of the countries of eastern Europe.¹ In all cases polytechnical education implied a common curriculum for all children of school age which would include instruction in the basic sciences and, particularly in the last two or three years of compulsory schooling, a certain amount of planned work experience intended to lay the foundations for occupational training later on. More recently there has been a trend towards greater flexibility with the introduction of a wide range of optional subjects adapted to the pupils' aptitudes and preferences.²

Other countries have maintained the different educational streams—general, vocational, technical—but have modified the syllabi. By and large,

¹ In Bulgaria and Czechoslovakia in 1959; in eastern Germany its initial introduction (December 1959) was confirmed by the 1965 law on the unified socialist educational system.

² A resolution adopted by the Central Committee of the Czech Communist Party in 1964 launched a review of the whole education system with a view to working out a new concept of polytechnical education for implementation by 1970. Educationists were asked to determine the most appropriate forms of differentiation and, already in the 1964-65 school year, certain forms of differentiated teaching were being introduced experimentally at selected schools.

the modifications have tended to introduce a greater proportion of practical work into the general education syllabi and of general subjects into the vocational and technical streams, and have tried to provide for increased flexibility as regards transfer from one stream of education to another. Cases in point are the new syllabi which started to come into effect in Poland in 1967. The multiple-stream options introduced into the final year of compulsory education in Sweden were mainly intended to give education as a whole a more practical, occupation-oriented bias, but it was also hoped to eliminate some of the popular prejudice against the less academic lines of education and training. The same can be said of the new multi-purpose secondary schools which have begun to be set up since 1967 in France.

Vocational orientation and guidance

The general tendency to stay on longer at school and the concepts of polytechnical education and multi-purpose schools have created new problems for vocational orientation and guidance and have, at the same time, considerably enhanced the importance of guidance activities. Postponement of the final decision for an occupational field and the broader educational bases of the final years of compulsory education have expanded the range of occupational possibilities open to the young school-leaver and rendered the work of the counsellor more complex.

There has been a move over the past decade or so to spread the span of vocational orientation and guidance both backwards into the primary school programme and forwards to come to the aid of the adult worker. Despite the extension of the vocational guidance field to include the latter, however, the main effort is still—and is likely to remain—concentrated on youth.

Most countries have tried to meet the challenge of the increased need for vocational guidance by taking advantage of the longer period of compulsory schooling to include systematic, planned observation and orientation sessions and guidance counselling in the regular school programme. Countries already possessing school guidance services have been concerned with expanding and reinforcing their activities; others, as for instance Spain, where a decree issued early in 1967 recognised the right of all young people of school age to have access to adequate scholastic guidance, may have taken steps to establish such services for the first time.

Modern concepts of vocational orientation usually see the process as comprising two stages: general orientation activities and practical orientation. The former are largely informational. The latter comprises short periods of practice and/or observation in several occupations to give the adolescent preparing to enter the labour force first-hand information about the nature and

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conditions of work in the occupation in question and to ensure a realistic approach to occupational choice. The "work education" included in the polytechnical education systems in Czechoslovakia, the USSR and elsewhere in eastern Europe, the observation and orientation cycles instituted with the French educational reforms and the prevocational ninth-year classes in Norway are cases in point.

In Austria the new polytechnical¹ ninth-year courses introduced last year are intended to give adolescents who are neither attending a junior secondary or a higher school (whether general or technical, agricultural or vocational) nor staying on in the regular primary classes or in a special school, further education and general basic training with a view to their future careers. Variants on the same theme are the prevocational classes initiated in some cantons of Switzerland and providing an optional year of continued education for young people who, on completing their compulsory education, are not sufficiently mature to make a valid occupational choice.

More recently there have been signs of a tendency to carry practical orientation one stage further: to enable pupils to get, through personal work experience in selected occupations, a realistic idea of what jobs and job environments entail. In Sweden such practical vocational orientation has been made compulsory for all the eighth-year pupils in the new common basic school as from the 1965-66 school year. Implementation of this scheme, which consists in organising work experience in two or three different jobs for each pupil for a total period of three weeks, entails a tremendous amount of organisational work. It also calls for the full co-operation and comprehension of all parties concerned: parents, teachers, pupils, employers, the employees from whom the youngsters will get their information, the county school boards and labour boards, the vocational guidance specialists.

Examples comparable to the Swedish scheme have been noted in other countries—for instance, in the Federal Republic of Germany and the United Kingdom—but in neither of these countries has practical vocational orientation been made compulsory. And even here the complex problems involved in arranging such work experience is making many of the persons and authorities concerned have second thoughts about the system.

With the increased attention being paid to vocational and scholastic guidance activities has come also a general desire to know more about the effectiveness of different systems and methods of occupational testing. It is apparent that tests often tend to leave out of account the human element. While accepting the fact that change of occupation is likely to occur with greater frequency in a lifetime today than a generation ago, many people are concerned

¹ The term "polytechnical" is used in a rather different sense from that in the USSR.

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over the proportion of young workers who, only a few years after completing their initial training, experience job dissatisfaction and seek to enter a new field more in line with their interests and aptitudes. In some cases their previous training represents a substantial loss to themselves and to the industry or firm. Current research in this field—in the Federal Republic of Germany, in France, in the United Kingdom, in the USSR and in eastern Germany, as well as in many other countries—has been trying to assess the impact of factors, other than the school guidance sessions and the work of the guidance counsellor, which have an influence on the individual's choice of occupation and successful adaptation to the work environment: physique, level of general education, home environment, occupation and level of education of the parents, etc. Attention is also being paid to the important questions of the selection and training of the counsellors themselves who must be able to use all the wide range of media available today to help them in their task.

Trends in vocational training

The increased demand for education—both general and technical—has been paralleled by an equally marked increase in the demand for vocational training. Not only are employers seeking more highly qualified staff but workers are themselves increasingly aware of the need to obtain more formal qualifications and acquire skills of a higher level or wider range in order to secure their level of earnings and to achieve job satisfaction and improved social status. It is now commonly recognised that an advanced stage of industrial development demands more and more persons with good education and training and fewer persons with only limited knowledge and skills, and that transfers from one occupational field to another are becoming increasingly necessary. The individual therefore needs to be more versatile by receiving a broad-based initial training which will facilitate subsequent specialisation and/or retraining.

These general trends have meant that two parallel movements have dominated vocational training in Europe during the past 20 years: expansion and rationalisation. Though young people stay on longer at school and therefore are older on entry into employment, this has not meant any diminution in the demand for training. On the contrary: longer exposure to education tends to stimulate the demand. But the expansion does not apply only to youth training. It is just as evident as regards the training of adults, and all countries have been experiencing a steady, and in some cases a sharp rise in the numbers of persons seeking further training and education, or applying for retraining after having been in employment for some years.

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The urgency of the need to expand all types and levels of training has been one of the main stimulants for the rationalisation process. Financial limitations make it essential to ensure effective use of available funds, training staff and facilities. The quality of the product of the training system—the trained operative, the skilled worker, the technician, the supervisor—must be improved in order to reduce wastage and to raise the productivity of the individual. By and large, action to achieve these ends has followed two lines: there tends to be an organisational approach and a methodological approach, the search for new or improved structures and for training methods better suited to current and probably future requirements.

Organisational trends

If there is any single trend that predominates as regards the structural organisation of training, it is probably that of recognition of the need for a certain amount of planning at the national level so as to avoid duplication of effort and waste of money, and generally to improve efficiency. Countries—and every single country of Europe has passed major vocational training legislation or taken comparable action during the past 20 years—have been concerned with instituting national organisational structures capable merely not only of meeting the initial training needs of new entrants into the labour force but also of providing for their continued training at different stages throughout their working life.

This broad concept of the organisational structure of vocational training was clearly stated in the ILO Vocational Training Recommendation adopted in 1962, which states that "each country should have a network of training facilities, adjusted as regards number, location and curricula to the economic requirements and employment possibilities of the country as a whole or, where more appropriate, of each region or locality, to meet the training needs of the residents of the country". Further, the nation's network should be so designed in a way which facilitates transfers from one type of training to another and access to successive stages and different levels of training within an individual's abilities and in accordance with his inclination. The capacity and nature of the structure will be based on the individual country's assessed manpower needs and resources in terms of the current and foreseeable future economic development plans.

Responsibility for training is a point on which views have been changing. Recognising that they have a prime interest in ensuring an efficient and comprehensive national system of vocational training, most governments are today prepared to assume major responsibility for it. National budgets continue to provide for increased expenditure on educational activities with a relatively high proportion earmarked for vocational training and technical education

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for youth as well as for adult training and related further training activities. But in view of the shortfall in existing and estimated future output of the systems governments must also rely heavily on the participation of the other interested groups and in particular on employers providing in-plant training. At plant level, training activities are tending to absorb an increasing proportion of overhead or operational costs. This is as true of the countries which have hitherto been considered to have mainly an industry-based apprentice training system such as Denmark, the Federal Republic of Germany and the United Kingdom, as of those which have traditionally placed greater emphasis on school-based training, such as France and Sweden.¹

The actual body or authority which, at national level, should be made responsible for vocational training is a subject of debate. What determines the ultimate choice is likely to be a combination of factors: the economic and social background and educational structure of the country, for example, and its historical approach to education and training. Countries which have traditionally stressed the educational value of occupational training tend to give over-all responsibility to the Ministry of Education; those which emphasise its employment or economic growth aspects are likely to make it a function of the department of labour, of economic affairs or of industry and/or commerce. In some countries—e.g. the Netherlands and, since 1964, the United Kingdom—administrative responsibility is delegated to autonomous or semi-autonomous organisations under the general supervision of the competent ministry. Frequently too, largely for historical reasons, specific sectors such as agriculture have developed entirely separate training structures, each dependent on the ministry or department directly concerned. The training of adults also tends to have developed its own organisational structure, usually dependent on or closely linked with the manpower authorities—the National Employment Agency in Belgium, for instance, and the Association for the Vocational Training of Adults in France.

While it is certainly desirable for one authority to have over-all responsibility at national level, centralisation is not essential and the choice of one specific body or the other is relatively unimportant. Vocational training is a field for joint action, requiring the close co-operation of all the services and departments enumerated above, and of others too, as well as that of the non-governmental partners in the training process—individual employers, the employers' and workers' organisations, trade associations, etc. The integrated

¹ It has been estimated in France, however, that of all youngsters learning a given trade in 1962, about 51 per cent were learning it under school conditions while the remainder were learning the same trade (or an almost identical one) on the job under an apprenticeship contract.

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approach can be achieved through the provision of adequate machinery to ensure interdepartmental consultation and co-ordination on the planning and execution of all vocational training programmes.

Rationalisation of methods

An acute and universal shortage of teaching staff of all categories and levels has been one of the chief obstacles to the expansion of vocational training; it has also been one of the main stimulants for the rationalisation of training methods. Whatever the causes of the shortage, the remedies tend to be sought in improving the initial training of vocational teachers and instructors, making adequate provision for updating their technical and pedagogical skills, and raising their status by assimilating them to their counterparts in the general and technical streams of education.

Parallel to these long-term measures aimed at raising the standards and effectiveness of training there has developed an active search for new and improved training programmes and teaching techniques. Instruction must reach more people, be conveyed over greater distances and wider areas, be assimilated in less time. A process of rationalisation has become essential, backed by systematic experimentation of new teaching aids and techniques and modern communication media (overhead projectors, programmed instruction, radio and television, etc.).

The system known as "training by stages" (*Stufenausbildung*) which originated in the Federal Republic of Germany a few years ago and has since been taken up successfully by other countries, among them the USSR, is a direct outcome of the rationalisation approach. It usually comprises three stages, corresponding to the three years of apprenticeship. The first and second stages, which comprise basic training common to a number of trades within a given occupational group, take place mainly in a training workshop; the third stage is the period of real specialisation in production. The promoters of the system point to many advantages: more broadly based training during the early stages, which permits greater flexibility in changing from one specialisation to another while remaining within the same occupational group, and a longer orientation period leading to a better final selection of an occupation.

Much the same approach can be applied with respect to school-based vocational training. In 1966 the Swedish Committee on Vocational Training recommended the adoption of "block training" with respect to the vocational part of the new school curriculum. The syllabus would start with a year of broad basic training containing elements common to all units of an "occupational family" and lead the trainee step by step, in successively narrowing training blocks, to specialisation in one or other of the "family" components.

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For a "family" with five unit components (A-E), the structure of the block-training would be as follows:

| | Unit | | | | |
|---------------------------------------------------------------|------|-----|-----|-----|---|
| Third year: specialisation in one unit | A | B | C | D | E |
| Second year: preliminary selection | | A-B | | C-E | |
| First year: broad training common to all 5 specialisations | | | A-E | | |

Each vocational block would constitute a whole, comprising instruction in general education subjects, trade theory and workshop practice, as well as practical exercises.

Both "training by stages" and the block system are the outcome of new concepts of trades and trade groups which have led many countries to revise their lists of apprenticeable trades. In Czechoslovakia, for instance, such revision has resulted in reducing the number of apprenticeable trades by more than a third since 1958. In the Federal Republic of Germany, despite the addition of new trades such as instrument mechanic (automated equipment), laboratory assistant (physics) and laboratory assistant (chemical), the net result has also been a substantial reduction in the number of trades being taught, and the same trend is apparent in the USSR and in most countries where there has been a formal apprentice training structure. The trades have become broader in scope, and specialisation is being postponed to a later stage in the training process.

Special aspects of youth training

Much current discussion on the training of young people centres on whether skilled work should or can be taught in a school situation or whether it should be learned on the job. The discussion is confused because it is overlaid with preconceived ideas and doubts about the ability of industry-based apprentice training to adapt to the new situations created by the prolongation of schooling. Some of these fears were expressed in a manifesto published in December 1964 by the National Union of the Staffs of French Chambers of Artisan Trades: prolongation of compulsory schooling would bring about a sharp decline in recruitment into the major apprenticeable trades; at the age of 16 adolescents are often less receptive, already have exaggerated pretensions

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and may be reluctant to enter certain trades which, as a result, will later on experience a real manpower crisis.

In Italy vigorous criticisms levelled, in particular by trade union circles, at apprentice training repeat complaints encountered in other countries too: that the provisions of the Apprenticeship Act are ineffectively supervised; that instead of being trained apprentices are often assigned to production work and given tasks unconnected with their future trade; that apprentices are sometimes engaged directly by the undertaking instead of through the employment offices; that classes of related theoretical instruction, limited to three to four hours a week, are rarely co-ordinated with the apprentices' practical work. Under such conditions industry-based training, concluded a Joint Committee on Vocational and Technical Education set up in 1962 by the Italian Federation of Chambers of Commerce, Industry and Agriculture, may well be a less appropriate form of training for young people, and any training activities outside the school system should be restricted to training for adults.

School-based training also comes in for its share of criticism. To many employers the young worker taken on immediately on completion of his training at a vocational school or similar institution has still to acquire much of his skill and knowledge on the job in a work atmosphere. They claim that the schools frequently teach out-of-date techniques, pay too little attention to practical work, have the youngsters spend too much time on meaningless exercises, are unable to inculcate the principles of workshop practice and, in general, discourage the trainee before he can get a feel for the job.

On both sides at least some of these fears are exaggerated. There is little to choose between the final product of good apprentice training and that of a modern, well-equipped and efficiently run vocational school or training centre. The reforms proposed relate less to basic changes in either system than to measures for ensuring that the system chosen is appropriately applied. Vocational schools should be able to call on the co-operation of employers and trade associations for providing technical expertise, organising periods of practical in-plant training for their pupils, updating their teaching staff, etc. Apprentice training might benefit from reinforcement of inspection services, pooling of training facilities and staff, an increase in the number of hours of related theoretical instruction and general education, and more pedagogical training for the supervisors and other staff concerned with training apprentices.

The gap between the two systems is narrowing. More and more apprentice training programmes are in fact providing for at least the initial part of the training to be given in a school. This is evident in the training-by-stages recommended in the Federal Republic of Germany, and in the encouragement being given in Czechoslovakia and Italy to the establishment of plant and

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inter-plant training schools. In the United Kingdom, even before the Industrial Training Act (1964) instituted a system whereby an industrial training board may decide to organise in-school training for apprentices if it considers the method appropriate, the Ministry of Labour had already been organising first-year training for apprentices in government training centres and the number of employer-organised group training centres has been steadily increasing.

At the same time it is becoming increasingly common in western Europe for vocational and technical schools to seek the collaboration of industrial, commercial and agricultural undertakings to ensure more realism and practical experience in their training programmes—a practice which has long been customary, and has already been carried much further in the USSR and other eastern European countries in their polytechnical education systems. The ultimate purpose of youth training must be the same. Whichever the system adopted, the training given young people should be broad and thorough enough both to ensure their adaptability to the changing employment markets and to lay a basis for their further education and training and possible need for retraining later on in life.

Training for adults

The concept of a vocational training structure which consists of broad basic training for young persons providing the foundations on which to build successive stages of specialisation, and the more general acceptance of the idea that a person is likely to change his occupation two or three times or even more often during his working life, have had far-reaching repercussions on vocational training programmes for adults. These programmes are no longer limited to accelerated courses intended mainly to help unemployed and handicapped persons to become reintegrated into the active labour force. Instead, it is increasingly recognised that in many cases they can be a means of preventing the very situations they were originally set up to alleviate or cure.

Organisational, as has already been seen above, vocational training for adults may have developed an autonomous or semi-autonomous structure, but it must nevertheless fit into the over-all vocational training pattern. Various details in recent education and training measures confirm this approach. The 1963 Swiss law on vocational training, while it is primarily concerned with industry-based training for young entrants, pays considerable attention to facilities for further training after the trainee has obtained a final apprenticeship certificate. There is a tendency to show greater flexibility as regards age limits for apprentice training, as may be seen in the raising of the maximum age for an apprentice in the Netherlands to 27 years (previously 21 years) and the provision in the Norwegian Apprenticeship Act (1950) which made it possible

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for persons over 20 years of age (the usual maximum age limit for an apprenticeship) to enter full apprentice training on a voluntary basis.¹ In both cases there was a strong economic motive: shortage of skilled workers made it worthwhile to tap the additional source of persons who for one reason or another had not started an apprenticeship at the right age. Carrying this trend to its logical conclusion, the Norwegian Ministry of Education has recommended that adult training should be given the same status as youth training and that there should be a more flexible approach to certification on the basis of part-time courses.

In the USSR and in socialist countries of eastern Europe, part-time training of adults for purposes of upgrading and promotion has always been regarded as part of the normal educational process. Soviet enterprises are, in fact, required by law to provide further training facilities for their workers. Collective agreements specify the number of persons for whom further training is to be provided, as well as the nature of the training and its duration, and every effort is made to encourage workers to participate in the programmes.

A co-ordinated approach has been developed in Poland. In 1965 the Council of Ministers, in agreement with the Central Committee of Trade Unions, introduced a series of measures for promoting adult education through part-time courses of basic and further training for workers. The latter was considered to comprise both upgrading and/or training for promotion and updating. Further training was made compulsory for certain workers (those employed in branches of economic activity where the pace of technical development and change warrant it) and it has to be organised in conjunction with annual or long-term economic development programmes.

Few countries have gone so far as to declare further training compulsory for certain trades or occupational fields, however. Action has most often been directed towards measures to encourage participation in courses of further training and education or to promote the institution of appropriate training facilities for adults.

Retraining

In western Europe the figures involved may be indicative of a similar recognition of adult vocational training as a permanent strategy in manpower utilisation and economic growth. In 1963-64, there were some 5,500 participants in government-sponsored adult vocational training courses in Norway; in 1966 it was planned to raise the intake to some 12,000 to 15,000 annually. A comprehensive workers' occupational upgrading programme launched by the

¹ The number of persons able and prepared to accept the financial sacrifice of starting a late apprenticeship, however, is small.

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Ministry of Labour in Spain in 1964, estimated a need for a trainee output of some 750,000 persons¹, chiefly in rural or semi-rural areas, between 1964 and 1967. In France the Association for the Vocational Training of Adults planned to nearly double its trainee intake between 1967 and 1970 in order to reach an annual total of some 70,000 participants in a wide range of training programmes. The objective of the Swedish Government is a permanent retraining effort reaching about 1 per cent of the labour force annually.

Numerical expansion and changing concepts of the purpose of adult training have led to revised opinions regarding the trades for which such training programmes could appropriately be organised. Twenty years ago the accent was on short-term courses for a relatively low level of skill leading to immediate employment, mostly in the construction industry and the metal trades. In most cases the courses did not last more than a few months. By the 1960s longer-term training was becoming far more prevalent with the majority of courses running from six to twelve months and even longer, and the range of programmes including training for occupations in electronics and precision mechanics and other skilled industrial occupations, for many of the service trades, for clerical work as well as for higher level technical occupations such as industrial design (the latter still being the exception rather than the rule).

Whatever the authority responsible for retraining for adult workers, its functions tend to be both pedagogical and organisational and to follow standard patterns. The Belgian National Employment Agency sets up adult vocational training centres on the basis of a detailed study of the employment market and in consultation with the employers' and workers' organisations. Its central services provide the premises and equipment for the centres, prepare training manuals and ensure that the instructors are properly trained. Its regional offices manage the centres, select the trainees, arrange for their placement and organise a follow-up service to ease the trainees' adjustment to the job situation.

In France the adult vocational training movement was reinforced technically by the establishment in 1963 of the National Adult Training Institute which conducts research into and initiates teachers and senior staff in the principles and methods of training for adults.

The Spanish Department of Further Education, set up within the Ministry of Labour in November 1962, has wide functions for co-ordinating and encouraging public and private vocational training activities; for advising training centres (possibly deciding their location, nature and size), and for establishing

¹ Some 60,000 in 1964; 180,000 in 1965; 230,000 in 1966 and 270,000 in 1967. The majority of the courses are of very short duration—upgrading training in the true sense of the term.

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and managing public adult training centres. Under the workers' occupational upgrading programme, already referred to, there is to be a network of basic centres (one per province), local centres and itinerant training units, the latter to be used to give untrained workers the essential basic training required before undertaking any subsequent further training.

The system set up in Yugoslavia consists of a network of centres established through the joint efforts of undertakings, the communal, district, provincial and republican manpower and educational agencies, associations of specific industries and institutes specialised in vocational training and research. In both Spain and Yugoslavia a substantial part of the retraining work has been concerned with rural workers wanting to move away from agricultural occupations but eligibility for training is now increasingly being extended to employed persons with merely too low a level of qualification. More recently in the latter country the problem has become one of retraining redundant skilled workers, mainly miners but including workers in transport and in engineering. Most of this retraining work is done by the employment agency, either in one of its own training centres or in a centre run by an undertaking, a group of undertakings or an industrial association.

Incentives to train

Most countries have developed schemes for encouraging unemployed persons, or persons under threat of redundancy, to participate in adult training programmes. Payment of a subsistence allowance out of public funds to persons undergoing training is one of the distinguishing characteristics of retraining programmes.

The other aspect of the problem of incentives is illustrated by the measures taken to encourage local and regional administrations and private enterprise to institute training programmes of their own, to support government training activities, to plan their manpower and training requirements. The whole action outlined in the United Kingdom Industrial Training Act of 1964, with its balancing of levies and grants, of private initiative and compulsion, can be interpreted in this light.

In Belgium the National Employment Agency has instituted a special programme for newly established undertakings, existing undertakings that set up new divisions for new types of manufacture, and undertakings that change over, either wholly or partially, from types of production that have become uneconomic to other more viable activities. This assistance, which is complementary to the work of the adult vocational training centres, consists mainly in financial aid towards the cost of the training undertaken by the firm and for travelling and removal expenses incurred by workers. For training within the plant, for example, the National Employment Agency will contribute

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25 per cent of wages and social benefits over a specific period fixed for each trade (a percentage which is increased to 35 per cent if the undertaking is situated in a development area, to 45 per cent in an area affected by mine closures, and higher still if the workers to be trained are over the age of 50).

In southern Italy the vocational training activities of the Cassa per il Mezzogiorno now constitute a substantial part of its development programme. The scheme provides, among other things—

allocations for establishing and/or equipping government vocational institutes for agriculture and agricultural schools, and for enlarging and improving both public and private vocational schools and centres for industry, the craft trades and small-scale industry, the public services, the hotel trades;

credits for training and updating intermediate and senior technical and supervisory personnel, and for encouraging youth training (e.g. through scholarships);

direct establishment of specialised training institutions.

This action has helped to achieve a substantial increase in industrial employment in the area, and an even greater increase in the number of supervisory and management staff and salaried employees. On the assumption that the large firms can pick and choose their new employees and can afford to run good in-plant training for them, the Cassa per il Mezzogiorno is likely now to concentrate on helping small and medium-sized firms who start out with lower quality personnel and are ill-equipped to organise their training.

Few benefit/cost analyses of retraining have been made on the basis of European experience.

Studies of the results of retraining programmes, and in particular an OECD report on retraining activities in selected firms in six different countries of Europe and North America¹, have brought out certain conclusions as regards factors likely to contribute to the success of retraining programmes—

firms needing to retrain their workers should ensure that their vertical and horizontal lines of communication are good;

a firm anticipating a technological change should carry out preparatory studies to find out how many of its workers will be affected, and in what way, and the extent to which the workers' skills can be adjusted;

in some cases training programmes should be longer than strictly necessary, so as to enable a greater number of potentially good workers to finish the courses successfully;

¹ G. SCHONNING: *Retraining and Further Training* (Paris, OECD, 1965).

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... in the field, first the supervisors must be allowed to play a useful role in the training programme, and the training should take place on the premises where the worker feels at home.

They have also drawn lines for government action—used singly or in combination—in this field:

- (1) development of technical and/or vocational schools to serve the manpower needs of an industry—financial support coming from both the industry concerned and the community;
- (2) development of technical and vocational facilities by the community, with the government offering financial and technical support to firms requiring to adapt the skills of their adult workers;
- (3) incentives to encourage trade and industrial associations to create manpower service units advising on matters such as analysis of the impact of technological change on manpower requirements, assessment of skill changes needed to meet technical change, assistance in the training of instructors for retraining programmes;
- (4) financial assistance to firms anticipating technological or similar changes likely to require adjustment of their workforce, e.g. participation in the cost of (a) studying the manpower impact of a proposed innovation, (b) the actual adaptation of the workers' skills.

Supervisory staff

This chapter has so far been concerned almost exclusively with training for manual skills and operations. There is also, however, the permanent problem of training the supervisory and instructing staff required by industry. Like the shortage of vocational teachers, the shortage of training officers seems to be chronic. A key point in the situation appears to be a general inability to define the role and status of the training officer and the content of his job. Too little is known about either. Some studies have been carried out in the United Kingdom and Sweden, but on the whole little is written about this problem, although there is growing recognition that the training officer's work and functions need a wider range of skills and knowledge than previously expected of him.

A great deal more is known and written about the responsibilities and training of the supervisors on whom so much of industry's training function devolves. Little that is really new has penetrated the supervisory training field during the past 10 to 15 years, but many countries have been applying a process of assessment to existing policies and programmes. The mushroom growth of supervisory training programmes in the 1940s and 1950s has given

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way to a general endeavour to find out whether the programmes are really fulfilling their purpose. As a result, a number of more or less sophisticated evaluation formulae have been evolved and tried out during recent years.¹

Two main issues tend to dominate the scene: the need to clarify the role of the supervisor—the eternal “man in the middle” and the need to equip him better for his key function of ensuring good liaison not only with management but also with the constantly growing number of technical and auxiliary services on which industry today depends. Recognition of the latter has resulted in giving increased emphasis to training in communication skills in supervisory training programmes. This is a common trend. By whatever name it may be called, training in communication skills figures prominently in syllabi recommended by the Chambers of Industry and Commerce in the Federal Republic of Germany, the British Institute of Industrial Supervisors, the French Association for Increased Productivity, the training schools for supervisors in the Ukraine and the Councils for Foremen instituted in 1963 in the Russian Republic (RSFSR), not to mention the programmes run by major industries in all these countries and in others as well.

In this more limited field, therefore, there is evidence of the same trends and tendencies that have already been discussed earlier in this chapter. At all levels of responsibility and in all fields of economic activity it is clear that vocational training has been receiving a great deal of attention and thought. It has been going through successive waves of expansion and rationalisation, experimentation and assessment. Some of the innovations in method and content or in organisational structure may, in the light of experience, be modified later on, or discarded and replaced. But the experimentation itself is a positive factor and most of it seems to be progressing along the right lines. Perhaps most significant is the greater awareness of governments of the link between vocational training and manpower policy. It is increasingly being recognised that vocational training—for young people and adults, for those in employment as well as the unemployed—is an essential tool in planning for economic growth and social advancement.

¹ Some of these were described in the OECD study *Evaluation of supervisory and management training methods* (Paris, 1963), and in the round-table discussion sponsored by the ILO at Copenhagen in 1964 and attended by specialists from France, the Netherlands, Sweden and the United Kingdom (cf. “Evaluating Supervisory Training”, in *Training for Progress* (ILO/CIRF Publications, Geneva), 1965, Vol. 4, No. 4).

Problems of special categories of workers

7

Women

Women's employment, the problems that it raises and the measures that may be taken to facilitate it and to enable women to enjoy equal opportunities in regard to access to training and employment have received much greater attention during the recent period than in the past. This has been the result of many factors. In particular, countries faced by a tight employment market have been concerned to make fuller use of their labour reserves, including married women outside the labour force, and this has brought to the forefront the problems involved for many of these women in reconciling their home and work responsibilities. There has also been a growing awareness that women, who still tend to be concentrated in a comparatively small number of occupations, often at low levels of skill, might be relatively more threatened than men by the repercussions of structural and especially technological change, which, as Chapter 1 indicates, tends to raise skill requirements and to reduce the amount of unskilled work to be done. The contrast between the tradition-bound concepts of "women's work" that still prevail in many places and the rapid pace of economic evolution, bringing with it profound changes in patterns of employment, has been increasingly felt, and greater efforts are being made to bring about a more realistic view of women's occupational future and needs.

Women's employment can be analysed from three major angles. In the first place, an analysis of trends in the industrial distribution of the female labour force shows the sectors in which women have been mainly absorbed in recent years. Secondly, their distribution by major occupational groups gives some insight into the skill levels at which they are employed. Thirdly, it is necessary to find out what changes are taking place in the pattern of women's work life, i.e. to what extent women take part in economic activity at various times in their lives. The implications of all these changes will be reviewed, together with trends in vocational training for girls and women,

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with a view to assessing what may be the future main preoccupations of policy with regard to the employment of women workers.

Trends in industrial distribution of the female labour force

Substantial changes are taking place in the industrial structure of the female labour force.¹ This evolution will be reviewed for the major sectors employing women workers.

In line with the general decline of the agricultural population, available data in almost all countries show a decrease in the proportion of active women engaged in agriculture. The fall has been most marked in countries where this proportion still exceeded one-third in the early 1950s, e.g. Austria, Finland, the Federal Republic of Germany, Portugal and Yugoslavia, as well as in Denmark, France and the Netherlands (where the proportion was initially somewhat lower). Substantial declines have also been observed in the centrally planned economies.

The proportion of the female labour force employed in agriculture still varies widely, however, ranging from 5 per cent or less in several of the more highly industrialised countries of western Europe to well over one-half in some countries of eastern and southern Europe and up to 94.5 per cent in Turkey. However, whereas the proportion of women in the total agricultural labour force was quite small in the former countries (amounting in most cases to roughly one-tenth), women constituted a majority of agricultural workers in most of the latter countries. This suggests that the rationalisation of agriculture which goes along with the reduction of the labour force tends, as a long-term trend, to bring about a much greater decrease in the demand for female than for male workers.

During the same period most European countries for which comparative figures are available experienced a rise in the proportion of the female labour force employed in the manufacturing industries (the only exceptions being France, Spain, Sweden and Switzerland, where the proportion remained substantially the same, and Belgium, Norway and United Kingdom, which witnessed a decline). Concurrently, while women continued to be much less numerous than men, their share in total manufacturing employment tended to increase (with a few exceptions, such as Denmark, Finland, Norway and Portugal).

Generally speaking, however, the proportion of women in this sector, both in relation to total female employment and to total employment in manufacturing, ranged much less widely than in agriculture. In the more industrialised countries, both in eastern and western Europe, manufacturing absorbed some 20 to 30 per cent of the female labour force, this proportion being exceeded

¹ Cf. ILO: *Year Book of Labour Statistics*.

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only in the Federal Republic of Germany, Switzerland and the United Kingdom; the share was smaller (between 5 and 15 per cent) in the less industrialised countries, such as Bulgaria, Greece, Poland, Rumania, Turkey and Yugoslavia. In relation to men, women's share was highest in the USSR (47 per cent in 1966), in Hungary (38.8 per cent in 1963) and in Finland (37 per cent in 1960) but in most other countries it was comprised roughly between one-fifth and one-third.

These trends and characteristics of female employment in manufacturing suggest that while this sector absorbs a share, which is substantial in some cases, of the female labour force, its power of attraction continues in many countries to be less than that of the two sectors where women tend to concentrate mainly, i.e. commerce and services.

According to available data the share of these two sectors in total female employment exceeded at recent dates 60 per cent in Belgium, Denmark, Ireland, the Netherlands, Norway and Sweden; it comprised between 50 and 60 per cent in France, Switzerland, and the United Kingdom; it was less than one-half but more than one-third in Austria, Finland, Greece, Italy and Spain. In all these countries it was much higher than the proportion of men employed in commerce and services and the difference was particularly marked in the latter sector.

Available data show that the proportion of the female labour force engaged in commerce and services was lower in the centrally planned economies (where these two sectors also represent a smaller percentage of total employment) than in most market economies; thus, it amounted only to 28.9 in Hungary in 1963, and to 22.3 in Poland in 1969. However, as in the market economies, the share of women in total employment in commerce and services was high, accounting for more than one-half in Hungary (1963) and Poland (1960). In the USSR in 1966 women represented 73 per cent of total employment in consumer services, public catering, processing and supply of materials and machinery; 72 per cent in education; 85 per cent in health services; 45 per cent in science and scientific services; 74 per cent in credit and insurance; and 56 per cent in administration and related services.

Much emphasis has recently been placed in several of the centrally planned economies on the need for expanding the services sector and it may be expected that this will in future provide many employment opportunities, *inter alia*, for part of the still relatively large numbers of women active in agriculture.

Occupational distribution

The occupational distribution of women is strongly influenced by their industrial distribution and it is therefore not surprising to find a large propor-

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tion of working women concentrated in most countries in clerical and sales occupations as well as in occupations in services, recreation and sport. Craft and production process workers and labourers, on the other hand, make up a substantially smaller proportion of the female than of the male labour force. So far as farming occupations are concerned, their share of women's employment varies widely in accordance with the relative importance of the agricultural sector. And women in transport, mining and quarrying occupations make up but a small fraction of total female employment.

It is interesting to examine the participation of women in the two occupational groups comprising higher-level occupations—i.e. professional, technical and related workers, and executive and managerial workers—in order to determine what is the position of women as compared with that of men in these occupations.

Recent data¹ show that women are well represented in professional, technical and related occupations, where they make up over 40 per cent of the labour force in Austria, Belgium, Denmark, Finland, France, Ireland, Portugal and Yugoslavia; between 30 and 40 per cent in the Federal Republic of Germany, Greece, Italy, the Netherlands, Norway, Sweden, the United Kingdom and Hungary; and somewhat less in Turkey (20.7 per cent). The large number of women in teaching accounts in part for this situation. Although fully comparable data are lacking for most of the centrally planned economies, in some of these countries the proportion of women in many high-level occupations is considerable; recent reports show that in 1966, women formed 55.4 per cent of all scientists and teachers in Czechoslovakia and that in the USSR they accounted for 58 per cent of specialists employed in the national economy.

In several countries (e.g. Belgium, Denmark, Finland, France, Ireland, Norway and the United Kingdom) professional, technical and related occupations absorbed between 10 and 15 per cent of the female labour force, and in the Netherlands and Sweden over 15 per cent. In all these countries and in some others (Greece, Italy, Portugal, Switzerland and Yugoslavia) this proportion was higher than the corresponding proportion for men. In Austria and the Federal Republic of Germany (where 6.7 per cent of all women workers belonged to this group), in Hungary (8 per cent) and in Turkey (1.1 per cent) the opposite was true, though by a relatively small margin.

The situation in regard to women's access to this major occupational group seems therefore on the whole favourable. More detailed breakdowns reveal, however, that there are wide variations between occupations within this group. Large numbers of women are employed in education, particularly

¹ Cf. ILO: *Year Book of Labour Statistics, 1967.*

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primary education, where women are more numerous than men in many countries (forming 65 per cent or more of all primary-school teachers in France, Italy, Sweden and the United Kingdom). This predominance is less marked in secondary education and the proportion becomes even less in higher education. Education also absorbs large contingents of women in the centrally planned economies. In the USSR, the predominance of women over men in this sector was particularly marked.¹

On the other hand, few women are employed in technical occupations in the market economies, be it at technician or engineer level, although there are indications that their proportion in these two groups has been rising (in France, for example, the share of women between 1954 and 1962 rose from 2.1 to 3.7 per cent for engineers and from 7.1 to 9 per cent for technicians). In the centrally planned economies, however, the proportion of women in technical occupations is higher. In the USSR it ranged, in 1966, between 30 and 50 per cent in the different categories of engineers, agronomists, technicians, etc.

The proportion of women is much less in executive and managerial occupations than in professional, technical and related occupations. In almost all countries for which comparable data are available their share is 20 per cent or less, and this represents a smaller proportion of the female than of the male labour force. Numerically, however, this is everywhere a small occupational sector, constituting in most cases between 1 and 3.5 per cent of the total labour force only.

Data on the skill levels at which women are employed in other occupational groups are not available on a systematic and comparable basis. The results of surveys that have been carried out, however, show that where both men and women are employed, women are generally more heavily represented than men in occupations requiring relatively little skill. Even in industries such as textiles and clothing, which have a predominantly female labour force, the proportion of men employed often tends to rise along with the level of skill required.

Impact of technological development of women's employment

A recent ILO report² has highlighted certain implications of technological change for women's employment. In industry this is likely to result in a

¹ In 1966 women employed as teachers or library and cultural popularisation personnel made up 84 per cent of all specialists with specialised secondary education in this field and 68 per cent of those with higher education. Central Statistical Office: *Strana sovetov za 50 let.* (Moscow, Izd. "Statistika", 1967).

² United Nations, Economic and Social Council: *Economic Rights and Opportunities for Women*, document E/CN.6/500, 6 Dec. 1967 (Report prepared by the ILO).

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decline of employment opportunities at unskilled and semi-skilled levels, which will heighten the need for women to undergo training to acquire the skills for which employment opportunities are likely to be available.

Developments in commerce and offices, which have been absorbing ever larger numbers of women workers in recent years, will need to be watched very closely. Certain studies carried out in Australia, the United Kingdom and the United States suggest that the effect of automation may be to slow down the rate at which new jobs are created. Moreover, these new jobs seem in some cases to be filled by men rather than women. Thus, in a comprehensive survey carried out in the United Kingdom in 1965, it was found that there was a net reduction of 22.5 per cent in the number of job opportunities in those sections of the offices surveyed in which electronic data processing had replaced other procedures. Whereas just over three-quarters of the jobs abolished as a result of automation in office work had been held by women, half of the jobs created were usually filled by men.

This suggests that, even though the general picture which emerges from the published surveys and studies is that, so far, the introduction of automated equipment has not produced a decline in employment of non-manual workers, a forward look would be extremely desirable. So far, the effects of the trends described have been offset by increased demand arising in the undertaking concerned, or by unsatisfied demand for labour in other undertakings. Various measures have also cushioned the impact of automation on employment. Will the combined effect of the various factors at play continue to produce the same results? Or will those developments that tend to reduce employment opportunities gradually acquire greater weight?

Clearly, it is important for boys and girls alike that questions such as these be answered for all sectors of activity. However, in view of the ever-increasing concentration of girls and women in the tertiary sector, a reversal or even a slowing-down of the present trend towards a steady expansion of employment in commerce and offices might have far-reaching consequences for the employment outlook of the whole female labour force. Its implications would have to be fully appraised with a view, if necessary, to a reorientation of vocational guidance activities and in the provision of training facilities.

Trends in labour force participation by women

As a result of longer school attendance, fewer girls and women in the younger age groups are working now. In the market economies this reduction (together with some decrease in the number of older women at work) accounts largely for the fact that between 1950 and 1965 female labour force participation rates tended to decrease in all but four countries, although women contri-

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buted half the increase in the total labour force. For the future¹, this trend is expected to continue in most European countries and to affect not only the 15-19 age group but, in many countries, the 20-24 age group also.

At the other end of working life, most countries anticipate either stable labour force participation rates for women between 55 and 64 years of age or some decline (particularly in the centrally planned economies, in some of which these rates are now relatively high, exceeding 50 per cent). However, several countries (Belgium, Denmark, Ireland, Norway, Spain, Sweden and the United Kingdom) envisage an increase. For women aged 65 and over these rates are generally expected to fall.

On the other hand, in many market economies marked increases (by up to 3.5 and 5.9 percentage points respectively) should, according to the projections, take place in the 25-44 and 45-54 age groups. This should be the case, for example, in Belgium, Denmark, Finland, France, Greece, Ireland, the Netherlands, Norway, Spain, Sweden, the United Kingdom and Yugoslavia. By contrast, labour force participation rates are expected to undergo a noticeable decline in these age groups in the Federal Republic of Germany, in Italy and in all the centrally planned economies. It must be pointed out, however, that while certain general trends common to a large number of countries can be defined, the actual rates of labour force participation will continue to differ substantially between countries. Thus, by 1980, a substantial majority (though somewhat smaller than in 1965) of all women between 25 and 54 years of age will still be working in most centrally planned economies (except in eastern Germany and Hungary, where the proportion will be roughly one-half), whereas in the market economies only Austria, Finland, Sweden and Turkey expect to have more than half of their women in that age group in the labour force; while in six countries (Italy, the Netherlands, Norway, Portugal, Spain and Switzerland) the corresponding rates will be some 30 per cent or less.

What are the implications for women's employment of the trends in labour force participation rates in different age groups?

In the many countries where the participation rates for the age groups from 25 to 44 and 45 to 54 are expected to rise this phenomenon will have three main consequences. Firstly, the average duration of women's occupational life will tend to increase and considerations such as the interest of the work and the promotion prospects it affords, to which hitherto many young women paid relatively little attention in the expectation of a short working life, should therefore carry increasing weight in occupational choice and

¹ The discussion of expected future trends in female labour force participation rates is based on the Statistical Appendix to this report.

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preparation. Secondly, since many women in these age groups will in fact be returning to work after an interruption to look after their children while they are small, and since some may never have worked at all, the problems of their introduction to or re-entry of employment are likely to be experienced on a larger scale than in the past. Both these factors will enhance the importance of counselling and training services for women, including the provision of facilities for updating or refresher training for women who enter or re-enter employment in later life.

The third consequence is that a growing proportion of women workers will be married women who must reconcile their family and work responsibilities. This trend is already in evidence in many countries. In the United Kingdom 55.7 per cent of female employees were married women in 1967 as compared with 51.5 per cent in 1961, and 38.1 per cent in 1951. Similar increases are evident in other countries, such as France where married women constituted 53.2 per cent in 1962 as compared with 48.9 per cent in 1954. In Sweden the proportion was 50 per cent in 1967 as compared to 30 per cent in 1950. In Switzerland it rose also from 16 per cent in 1950 to 25 per cent in 1960. Similarly, in Norway it increased from 12 per cent in 1950 to 24 per cent in 1960. Comparable developments are noticeable in other countries such as Austria, Belgium and the Federal Republic of Germany (in the centrally planned economies, with their high female labour force participation rates, the proportion of married women is even higher). This tendency should continue in future, not so much because of an increased demand for female workers (indeed, the proportion of women in the labour force is generally expected to remain fairly stable between 1965 and 1980) but because of the changing age structure of the female labour force. The implication is that there will be a growing demand and need for the kinds of services and arrangements which may facilitate the accomplishment by these women of their dual functions, such as the provision of child-care facilities, school meals, transportation facilities to and from work, adjustments in school and working hours and in shopping hours, etc. There may also be a growing interest in the organisation of part-time work, both on the part of the women concerned and, should the supply of married women workers not keep pace with the needs of the economy, on the part of undertakings confronted with labour shortages. This may bring to the forefront the need for regulating part-time employment (whether for women, students, older people or other categories who may find advantages in such arrangements), in order to prevent abuses.

At the same time, the expected smaller participation in the age group from 15 to 24 years reflects a tendency for girls (like boys) to continue their education and training longer than in the past. More girls and young women, therefore, will have the opportunity to acquire the qualifications required for

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access to jobs at higher skill levels. This is in keeping with the expected future requirements for skilled personnel. In order that they may make the most of this opportunity, they will, as already suggested, need to be fully informed of the wide range of skilled occupations in which they could work and to be able to prepare for these. Expressed in these general terms the problem is, of course, the same for girls as for boys, but experience shows that girls' occupational choices, and the provision of training facilities for them, tend to respond less rapidly to new opportunities and needs than in the case of boys. This suggests the need for giving more adequate attention to the requirements of girls and women in vocational guidance and training activities.

Preparation for working life

The participation rate of girls in apprenticeship and other vocational training programmes, on completion of compulsory schooling, varies from country to country. As a general rule it can be said that it has been experiencing an upward trend in all countries of Europe over the past 10 to 20 years. This is particularly evident in apprenticeship, although the number of girls entering full-time training as apprentices is still relatively small: 20 per cent of the total apprentice intake in France (1960), 26 per cent in Switzerland (1965) and 32 per cent in Denmark (1962). Somewhat higher figures have been noted in eastern Germany, where in 1963 it was estimated that girls constituted just over 43 per cent of all apprentices.

These figures do not show the whole picture, however, since apprentice training within an undertaking is only one of the forms of vocational training open to young people on completion of compulsory schooling and since many children continue their general education and do not enter training proper right away. In many countries the tendency to continue in general education—rather than to enter more specialised streams—is more marked among girls than boys. For example, a Polish survey carried out in 1963-64 noted that the girls in urban areas seemed to prefer continuing into general secondary education, and into those technical schools whose curricula will lead to obtaining a secondary school leaving certificate, whereas a much higher proportion of boys opt for training in basic vocational schools. Girls, concluded the survey, tend to be better students, so they find it easier to pass the entrance examinations into more academic lines of secondary and higher education. The same views were expressed in a survey of women and girls in education, training and employment in eastern Germany, and have been voiced in other countries of Europe as well.

Girls still tend to train for a narrower range of occupations—those which have traditionally come to be regarded as female trades and occupations.

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This is true even in countries where there is no formal impediment to their entry into any and every type and level of occupation. In 1954 women constituted 10.8 per cent of the students studying mechanical engineering at higher technical level at technical colleges (Ingenieurschule) in eastern Germany, and 6.8 per cent of those studying electrical engineering. It is expected that by 1970 girls will make up about 30 per cent of all students at technical colleges.

At university level there has been a general increase in the number of female students and, in some cases, in their proportion in the total student population. However, girls are still very numerous in faculties such as general arts, which do not provide a preparation for specific professions. Teacher training also continues to be a popular field. The proportion of female students in science and medicine has, however, been rising in many countries. In medicine it was 34 per cent in France in 1959; in Sweden 23.4 per cent in 1960 (compared with 18.7 per cent in 1951). It was substantially higher, however, in certain of the centrally planned economies: in Poland women accounted for 58 per cent of all medical students in 1959; and in the USSR, where there has been some decrease in recent years, their proportion was still 55 per cent in the school year 1966/67. In most market economies few girls are registered in the technical faculties. Their proportion, while remaining a minority, is higher in the centrally planned economies (e.g. 32 per cent in the engineering and industrial field in the USSR in 1966/67).

To a considerable extent the tendencies observed in the choice of training paths by girls and women must be attributed to the educational systems at primary and secondary levels. In a few cases, in countries which do not have a common basic system of education, the duration of compulsory schooling differs for boys and girls. Even in primary school there tends to be a differentiation between the emphasis given to certain subjects in the syllabi for girls and in those for boys. Curricula for girls traditionally have to find room in the timetable for lessons in sewing, cooking and other home economics subjects, and very often they do so at the expense of mathematics and the sciences. At secondary level, if boys and girls then enter separate institutions, the distinctions become more marked. Even in the centrally planned economies, all of which have a common basic school programme for both sexes, this tendency can be observed. Certain of the practical stream classes may not be open to girls. Or else, as in a syllabus for "training-for-work" classes in primary schools (fourth to eighth years) in the Ukraine, classes in domestic science are provided for girls in place of training in woodwork.

As a result of the above, girls tend to be less well-prepared for entering certain occupational fields. In many cases few of them are encouraged by guidance services, their parents or the schools to overcome this initial

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obstacle. A few may be persistent enough to go in for "boy's" training but, particularly in some of the market economies, vocational schools for girls usually provide an entirely different range and type of training. Most girls are therefore still preparing themselves for traditionally "female" occupations: teaching and nursing, textiles and the clothing industry, wholesaling and retailing, clerical work and many of the personal services, such as hairdressing. The need to broaden girls' occupational choices has also been stressed in some of the centrally planned economies. In Poland and eastern Germany, as in the USSR, there are frequent references to the need to encourage girls to break out of the traditional lines of education and training, to enter new fields. It is increasingly realised that many working women have chosen their employment for incidental reasons—limited choice, for instance, or because their horizons have not been systematically widened to make them open to opportunities in new fields. They are often less well informed than boys on employment opportunities and the way to train for them. They continue to think in terms of community service occupations, such as teaching and the medical and para-medical occupations.

Trends in the educational system also have repercussions on the type of training and employment which women tend to take up later on in life when they wish to re-enter the active labour force, or possibly to enter it for the first time. In general, retraining programmes for older women also concentrate on child care, on occupations involving the care of the sick, on homekeeping and on various educational fields. It has been noted, however, that when courses for traditionally male occupations (e.g. the mechanical trades, the repair of telecommunications equipment) have been organised exclusively for women, the results have been extremely good.

It is chiefly during periods of pressure due to tight employment markets that the education and training of women and girls have received new impetus towards achieving parity with those available to boys. The general trends towards a longer period of compulsory education and the establishment of common systems of education for boys and girls are also helping to change attitudes towards the training of girls. But this is a slow process and only a few out of the great mass of women in the labour force show any strong inclination to follow the pioneers who set the pace in demanding equality of access to education, training and employment opportunity. Better information on actual employment prospects in the fields in which women tend to congregate and in other fields which might absorb larger numbers of women, as well as wider awareness of these trends, both among girls, their parents and their teachers, and among the authorities responsible for the development of training facilities, would contribute much to ensuring that girls and women, equally with boys and men, make the most of the new opportunities resulting

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from structural and technological change, as well as from the changing pattern of their work life, and that their abilities are effectively used.

Older workers

There has been little change in the employment problems of older workers since the subject was discussed at the International Labour Conference in 1962, and the views expressed by the Director-General in his Report to that Conference¹ generally still hold good for European countries.

Two main groups are concerned: (1) workers from about 45 years up to retirement age who find difficulty in holding their place in the labour force and (2) those who have reached the normal retirement age but nevertheless wish to stay at work.

In practice, few in the first group lose employment because of their age, but workers above a certain age in (most countries this is around 45), if they lose employment for other reasons, have greater difficulty than younger workers in finding fresh employment. This additional difficulty seems often to be unrelated to their skill or working capacity; a follow-up study of the later employment history of redundant automobile workers in the United Kingdom, for instance, showed that younger, less skilled workers found new jobs more easily than older, more highly skilled workers; similar experiences are reported in other countries. This is not attributable exclusively to pre-conceived notions or prejudices on the part of employers—older workers may be less mobile, and they may have greater difficulty in accepting a job which entails a drop in status. But it is undeniable that low age limits are set by many employers in the market economies, sometimes for tenable reasons, but in other cases for arbitrary ones. It may be remarked here that an employer who would not think of dismissing one of his own workers of, say, 50 years of age may nevertheless hesitate to take on an outside applicant of the same age.

It is seldom a question of the worker's declining physical strength; in fact manual workers over 45 normally have less difficulty in finding new jobs than non-manual workers of the same age. The older office worker is often in the worst position. The redundant executive also presents a special problem in that employers in the industry with which he is familiar seldom have a vacant place in their hierarchy into which he can fit. One of the present difficulties in a number of western European countries is that mergers are leading to the redundancy of a number of executives and office workers over 40-45. Concern in respect of this category is reported from Belgium,

¹ ILO: *Report of the Director-General—Older People: Work and Retirement*, Report I (Part I), International Labour Conference, 46th Session, Geneva, 1962 (Geneva, 1962).

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France, Luxembourg and the United Kingdom. One of the main specifications which many employers set in recruiting new executives is that of youth. An analysis of press advertisements for vacancies in this category showed that 83 per cent in France and 80 per cent in Belgium asked for candidates under 40.

The special problems of older workers becoming redundant in declining industries — coalmining, railways, shipbuilding, textiles, etc. — have already been mentioned.

In view of this situation, government measures are normally directed in the first place to trying to avoid redundancies. Legislation protecting workers against arbitrary dismissal, as in Belgium, France and the Netherlands, can prevent the discharge even of a worker whose capacity is declining. In the centrally planned economies and in the public sectors of market economies also there is normally a strong obligation on the employing establishment to explore every possibility of transferring the worker to another job before considering making him redundant.

In redundancy agreements, managements and unions sometimes find the easiest solution to be to agree on the premature retirement of the oldest workers; this, however, may sometimes be against the interest of the economy as a whole since these are the most difficult workers to place elsewhere. In some circumstances it would be a more rational solution to declare younger men redundant and to enable the older workers to continue to be usefully employed, in work which they know, up to their normal retirement age; in other cases such action would upset the future age structure of employment in the undertaking concerned. If a redundancy is unavoidable, longer warning and higher severance pay are sometimes given to the older worker in recognition of the greater difficulty he will have in finding another job. However, it is reported that higher severance payments for older or long-service workers have sometimes had the undesirable side-effect of inducing these workers to volunteer to be made redundant when they might otherwise have continued in work.

Certain employment services — for instance those in the Federal Republic of Germany, the Netherlands and Sweden — have special counsellors to guide and place redundant or unemployed older workers, and individual attention to each case generally appears to produce satisfying results.

The proportion of persons of 45 and over, participating in training programmes, has been going up but is still low in relation to the number of older workers who must stand in need of retraining. The problems are psychological rather than real. There is reluctance both on the part of the older persons to apply for retraining and on the part of the authorities to accept them. Experience has shown, however, that once accepted for retraining, the older

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worker is fully capable of assimilating new techniques and data, is likely to be more persistent during training and more stable in employment on completing the course.

A number of technical, pedagogical problems remain. The older worker undergoing training has four handicaps — difficulty in maintaining the pace of work, deterioration of short-term memory, disinclination to reverse decisions, and fear of failure and consequent humiliation. These difficulties have to be overcome by adapting both the training programme and the teaching methods. Long, uninterrupted periods of learning and active rather than passive teaching methods are needed, the trainee being allowed to set his own learning pace, to have written instructions to which he can refer and being encouraged to take notes. It is better not to place him in a group consisting only of younger trainees, and it is important to reassure him that retraining means retaining—or regaining—his status.

Special arrangements and longer training periods have cost implications — duplication of programmes perhaps, and greater outlay for a shorter employment prospect. Against this the social benefit must be considered, since these persons will again be productive for and not a charge on the community.

Where workers over the normal retirement age wish to stay in employment, it is generally recognised that it is in the public interest that they should do so, and governments accordingly try to ensure that social security measures do not contain any disincentives, either to the worker to stay on or to the employer to retain him. In manpower shortage situations there may be positive encouragement for continued employment.

A delicate question for decision by governments is the extent to which such workers should be able to go on drawing retirement pension concurrently with wages, and this has to be judged in the light of the specific local situation. In the USSR a differentiation exists according to the region: generally, those working regularly continue to draw 50 per cent of their pensions, but in the Urals, Siberia and the far eastern regions, this proportion is raised to 75 per cent. Also, pensioners working in mines or other underground enterprises, or in agriculture and certain services, receive their full pension irrespective of earnings. No reduction of pension is made in any part of the country on account of temporary work not exceeding two months a year.

Attention also has to be given to seeing that disincentives are not introduced through fiscal measures. For instance, in the United Kingdom, when selective payroll taxation was increased in March 1968, the Government left the effective rates for employees over the age of 65 unchanged; this was done to forestall any tendency the increase might otherwise have had to discourage the retention of elderly people in service jobs for which they were well fitted.

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Retired workers ready to undertake temporary work form a useful reserve to provide the labour force with the necessary flexibility to adjust to fluctuations. Measures affecting retired workers need to be conceived with a view to maintaining and, if possible, improving this flexibility.

Disabled persons

The past ten years have seen no major changes or innovations in vocational rehabilitation programmes for disabled persons in European countries. Rather has it been a period of consolidation, development and extension of the comprehensive schemes which were introduced immediately after the Second World War.

The pattern of disability has, however, changed a great deal. Whereas in the late 1940s and early 1950s the resettlement of persons suffering from tuberculosis still presented a formidable problem in many European countries, advances in medical science have reduced this problem very considerably. Greater emphasis is now being laid on the rehabilitation of the mentally handicapped and their integration into active economic life, i.e. through introduction of work preparation and evaluation schemes within hospitals, "half-way" houses which offer accommodation to the mentally restored and facilitate their transition from hospital to a normal working environment. The closer co-ordination of rehabilitation services, the further extension of guidance, assessment and adjustment services and the development of vocational rehabilitation and training facilities for the disabled are ensuring that they become socially adjusted and vocationally prepared to take an active part in the economic life of their country. This progress is reflected in the widening field of employment opportunity for the disabled; for example, in the past ten years increasing numbers of blind persons have entered normal competitive employment in the engineering industry as machine operators or inspectors (using special Braille aids). Other blind persons are engaged in clerical and commercial work, as computer and telephone operators and in a host of other occupations. In the United Kingdom the reorientation of sheltered employment for the blind is well under way, with a view to making sheltered workshops more competitive and efficient.

In Czechoslovakia, Poland and other eastern European countries, the development of co-operatives offering a wide range of employment for handicapped persons has continued. The Union of Disabled Persons' Co-operatives in Poland, for example, which in 1960 employed some 58,000 disabled persons, had by 1965 some 114,000 employed. The interesting feature of these co-operative enterprises is that they not only provide vocational rehabilitation facilities but also form an integral part of the economy, being self-sufficient and bringing

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in a considerable income from the sale of their products on home and export markets.

Mention must be made of the increased employment of disabled persons made possible through scientific research and progress in other fields. For example, great advances have been made in the provision of prosthetic appliances, particularly in the USSR. The application of ergonomic principles to ensure that jobs and workplaces are safely and suitably adapted to the needs and requirements of disabled persons has received much attention in the Federal Republic of Germany, Sweden, the United Kingdom and other countries. Attention is being paid, particularly in Denmark, Norway and Switzerland, to the elimination of architectural barriers (steps, stairs, lack of hand-rails, narrow doors, etc.) which in the past have hindered the satisfactory integration of the disabled in normal social and economic activity.

The importance of automation, in so far as employment of the disabled is concerned, was recognised in a Resolution adopted by the International Labour Conference at its 49th (1965) Session which recommended, *inter alia*, that information on the measures and techniques employed by member States in the rehabilitation and training of disabled persons for new forms of employment should be collected and disseminated. Information so far received from European countries indicates that the full impact of automation on training and employment of the disabled has still to be felt. It is generally conceded, however, that as the majority of vocational rehabilitation programmes are geared to eliminating or reducing the limiting effects of disability, so that the disabled can compete on equal terms with fit workers, the introduction of mechanised and automated processes is likely to facilitate this objective rather than impede it.

Statistical Appendix

**Projections of Population and Labour Force
by Sex and Age
1965-1980**

25 European Countries

GENERAL NOTE

Unless otherwise stated, labour force estimates and projections presented in these tables have been prepared by the ILO on the basis of population data supplied by the United Nations.

AUSTRIA

| Age | 1965 | | | 1970 | | | 1975 | | | 1980 | | |
|----------------------------|-----------|-----------|-----------|-------------------|-----------|-----------|-----------|-----------|-----------|-------------------|-----------|-----------|
| | Males | Females | Total | Males | Females | Total | Males | Females | Total | Males | Females | Total |
| Population | | | | | | | | | | | | |
| All ages | 3 365 571 | 3 831 690 | 7 197 261 | 3 454 965 | 3 900 374 | 7 365 339 | 3 562 116 | 3 956 182 | 7 518 298 | 3 693 985 | 4 007 420 | 7 671 405 |
| Less than 14 | 852 740 | 814 433 | 1 667 173 | 943 318 | 896 334 | 1 839 652 | 993 142 | 959 144 | 1 932 286 | 1 010 622 | 955 030 | 1 965 622 |
| 14-19 | 299 910 | 287 682 | 587 592 | 293 993 | 283 439 | 577 432 | 344 890 | 332 010 | 676 900 | 386 513 | 367 193 | 753 705 |
| 20-24 | 293 450 | 283 755 | 577 205 | 248 142 | 239 581 | 487 723 | 239 779 | 232 695 | 472 474 | 279 973 | 271 646 | 551 619 |
| 25-44 | 870 231 | 953 859 | 1 824 090 | 946 753 | 947 315 | 1 894 058 | 964 943 | 942 908 | 1 907 851 | 983 701 | 962 905 | 1 946 606 |
| 45-54 | 335 222 | 445 710 | 780 932 | 323 640 | 451 059 | 774 669 | 403 361 | 505 769 | 910 130 | 405 265 | 431 504 | 837 569 |
| 55-64 | 411 723 | 530 291 | 932 014 | 377 966 | 513 615 | 891 581 | 283 118 | 410 188 | 693 306 | 278 652 | 418 489 | 697 141 |
| 65 and over | 351 605 | 573 299 | 924 904 | 382 989 | 619 033 | 1 002 022 | 395 031 | 651 965 | 1 046 996 | 384 428 | 663 510 | 1 047 938 |
| Labour force | | | | | | | | | | | | |
| All ages | 1 999 650 | 1 336 220 | 3 335 870 | 1 929 881 | 1 247 164 | 3 177 045 | 1 969 064 | 1 255 966 | 3 225 030 | 2 054 100 | 1 300 351 | 3 364 451 |
| Less than 14 | — | — | — | — | — | — | — | — | — | — | — | — |
| 14-19 ¹ | 216 718 | 192 502 | 409 220 | 167 133 | 146 324 | 313 457 | 193 726 | 169 556 | 363 282 | 220 887 | 190 756 | 411 643 |
| 20-24 | 258 236 | 213 100 | 471 336 | 213 402 | 182 082 | 395 484 | 205 210 | 176 848 | 383 058 | 240 777 | 206 451 | 447 228 |
| 25-44 | 848 011 | 528 058 | 1 376 069 | 922 289 | 527 729 | 1 450 018 | 940 888 | 524 141 | 1 465 029 | 958 773 | 534 883 | 1 493 656 |
| 45-54 | 317 752 | 216 879 | 534 631 | 308 493 | 223 241 | 531 734 | 383 638 | 247 853 | 631 491 | 386 155 | 211 086 | 597 241 |
| 55-64 | 306 192 | 144 977 | 451 169 | 270 690 | 123 837 | 394 527 | 195 223 | 91 278 | 286 501 | 209 454 | 110 066 | 319 520 |
| 65 and over | 52 741 | 40 704 | 93 445 | 47 874 | 43 951 | 91 825 | 49 379 | 46 290 | 95 669 | 48 054 | 47 109 | 95 163 |
| Participation rates | | | | | | | | | | | | |
| All ages | 59.4 | 34.9 | 46.3 | 55.7 | 32.0 | 43.1 | 55.3 | 31.7 | 42.9 | 56.3 | 32.4 | 43.9 |
| Less than 14 | — | — | — | — | — | — | — | — | — | — | — | — |
| 14-19 ^{1,2} | 72.3 | 56.9 | 69.6 | 56.8 | 51.6 | 54.3 | 56.2 | 51.1 | 53.7 | 57.1 | 51.9 | 54.6 |
| 20-24 ² | 88.0 | 75.1 | 81.7 | 86.0 | 76.0 | 81.1 | 86.0 | 76.0 | 81.1 | 86.0 | 76.0 | 81.1 |
| 25-44 | 97.4 | 55.4 | 75.4 | 97.4 | 55.7 | 76.6 | 97.5 | 55.6 | 76.8 | 97.5 | 55.5 | 76.7 |
| 45-54 | 94.8 | 48.7 | 68.5 | 95.3 | 49.5 | 68.6 | 95.1 | 48.9 | 69.4 | 95.1 | 48.9 | 71.3 |
| 55-64 | 74.4 | 27.9 | 48.4 | 71.6 | 24.1 | 44.3 | 69.0 | 22.3 | 41.3 | 75.2 ² | 26.3 | 45.8 |
| 65 and over | 15.0 | 7.1 | 10.1 | 12.5 ² | 7.1 | 9.2 | 12.5 | 7.1 | 9.1 | 12.5 | 7.1 | 9.1 |

Source: OECD: *Demographic Trends, 1965-1980, Supplement: Country Reports* (Paris, 1986), pp. 43, 45.

¹ 14-19. This age group includes active persons 14 years of age who in 1961 numbered 20,049 males and 15,877 females, i.e. 37.4 per cent and 31.3 per cent of the 14 year olds.

² The increase in the participation rate for the age group 55-64 from 69 per cent in 1975 to 75.2 per cent in 1980 is due to a change in the relative size of its two constituent five-year age groups. Thus a calculation of the rates by five-year age groups shows unchanged rates from 1975 to 1980.

³ The changes in levels of activity rates for youths 20-24 and particularly 14-19 are too conservative for the period 1970-80 as compared to regional trends and trends for countries with similar levels of development.

BELGIUM

| Age | 1965 | | | 1970 | | | 1975 | | | 1980 | | |
|----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | Males | Females | Total |
| Population (000s) | | | | | | | | | | | | |
| All ages | 4 597.6 | 4 786.1 | 9 383.7 | 4 685.0 | 4 815.9 | 9 560.9 | 4 777.5 | 4 970.6 | 9 748.1 | 4 889.9 | 5 081.5 | 9 971.4 |
| Less than 15 | 1 142.9 | 1 091.3 | 2 239.2 | 1 162.9 | 1 107.0 | 2 269.9 | 1 172.6 | 1 117.9 | 2 290.5 | 1 206.7 | 1 153.2 | 2 359.9 |
| 15-19 | 355.9 | 393.2 | 699.1 | 363.4 | 348.7 | 712.1 | 386.2 | 369.8 | 756.8 | 384.2 | 367.6 | 751.8 |
| 20-24 | 282.2 | 272.3 | 554.5 | 353.6 | 342.3 | 695.9 | 361.1 | 347.8 | 708.9 | 383.7 | 368.8 | 752.5 |
| 25-44 | 1 219.0 | 1 266.4 | 2 545.4 | 1 216.0 | 1 196.4 | 2 412.4 | 1 234.7 | 1 210.9 | 2 444.7 | 1 270.4 | 1 240.7 | 2 511.1 |
| 45-54 | 507.1 | 524.4 | 1 031.5 | 538.5 | 552.9 | 1 091.4 | 627.7 | 642.3 | 1 270.0 | 608.6 | 617.8 | 1 226.4 |
| 55-64 | 534.8 | 595.9 | 1 130.7 | 516.3 | 575.9 | 1 092.2 | 437.1 | 488.0 | 925.1 | 469.8 | 517.4 | 987.2 |
| 65 and over | 495.7 | 692.6 | 1 188.3 | 534.3 | 752.7 | 1 287.0 | 558.1 | 794.8 | 1 352.9 | 566.5 | 816.0 | 1 382.5 |
| Labour force (000s) | | | | | | | | | | | | |
| All ages | 2 588.6 | 974.7 | 3 563.3 | 2 585.8 | 1 041.1 | 3 676.9 | 2 616.0 | 1 089.8 | 3 705.8 | 2 665.6 | 1 138.6 | 3 805.2 |
| Less than 15 | — | — | — | — | — | — | — | — | — | — | — | — |
| 15-19 | 169.1 | 138.1 | 307.2 | 152.6 | 139.5 | 293.1 | 144.8 | 138.7 | 283.5 | 128.7 | 128.7 | 257.4 |
| 20-24 | 242.7 | 147.0 | 389.7 | 297.0 | 198.6 | 495.6 | 296.1 | 201.7 | 497.8 | 307.0 | 213.9 | 520.9 |
| 25-44 | 1 239.5 | 427.1 | 1 666.6 | 1 179.2 | 425.5 | 1 604.7 | 1 198.9 | 456.2 | 1 655.1 | 1 235.6 | 491.1 | 1 726.7 |
| 45-54 | 469.6 | 150.3 | 619.9 | 500.9 | 169.2 | 670.1 | 582.5 | 200.4 | 782.9 | 564.5 | 199.1 | 763.6 |
| 55-64 | 418.2 | 88.6 | 506.8 | 402.7 | 85.0 | 487.7 | 337.9 | 69.8 | 407.7 | 374.1 | 83.8 | 457.9 |
| 65 and over | 49.5 | 23.6 | 73.1 | 53.4 | 23.3 | 76.7 | 55.8 | 23.0 | 78.8 | 56.7 | 22.0 | 78.7 |
| Participation rates | | | | | | | | | | | | |
| All ages | 56.3 | 20.4 | 38.0 | 55.2 | 21.4 | 37.9 | 54.7 | 21.9 | 38.0 | 54.5 | 22.4 | 38.2 |
| Less than 15 | — | — | — | — | — | — | — | — | — | — | — | — |
| 15-19 | 47.5 | 40.2 | 43.9 | 42.0 | 40.0 | 41.0 | 37.5 | 37.5 | 37.5 | 33.5 | 35.0 | 34.2 |
| 20-24 | 86.0 | 54.0 | 70.3 | 84.0 | 58.0 | 71.2 | 82.0 | 58.0 | 70.3 | 80.0 | 58.0 | 69.2 |
| 25-44 | 96.9 | 33.7 | 65.5 | 97.0 | 35.6 | 66.5 | 97.1 | 37.7 | 67.7 | 97.3 | 39.6 | 68.8 |
| 45-54 | 92.6 | 28.7 | 60.1 | 93.0 | 30.6 | 61.4 | 92.8 | 31.2 | 61.7 | 92.8 | 32.2 | 62.3 |
| 55-64 | 78.2 | 14.9 | 44.8 | 78.0 | 14.8 | 44.7 | 77.3 | 14.3 | 44.4 | 79.6 | 16.1 | 46.4 |
| 65 and over | 10.0 | 3.4 | 6.2 | 10.0 | 3.1 | 6.0 | 10.0 | 2.9 | 5.8 | 10.0 | 2.7 | 5.7 |

Source: Population and labour force, 1965-70, *Revue belge de Sécurité sociale*, No. 12, Dec. 1965, projections of population and labour force, 1975 and 1980, ILO estimates.

BULGARIA

| Age | 1965 | | | 1970 | | | 1975 | | | 1980 | | |
|----------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | Males | Females | Total |
| Population | | | | | | | | | | | | |
| All ages | 4 098 136 | 4 102 108 | 8 200 244 | 4 263 360 | 4 254 836 | 8 518 195 | 4 441 293 | 4 418 914 | 8 860 207 | 4 603 938 | 4 569 057 | 9 173 005 |
| Less than 15 | 1 013 916 | 957 993 | 1 981 909 | 998 559 | 949 700 | 1 948 259 | 1 024 640 | 972 211 | 1 996 851 | 1 060 938 | 1 056 642 | 2 067 580 |
| 15-19 | 355 974 | 344 022 | 699 996 | 348 745 | 335 376 | 684 121 | 332 697 | 318 282 | 650 979 | 326 438 | 309 887 | 636 325 |
| 20-24 | 297 919 | 289 528 | 587 447 | 354 354 | 342 848 | 697 202 | 347 509 | 334 476 | 681 985 | 331 742 | 317 589 | 649 331 |
| 25-44 | 1 265 971 | 1 260 495 | 2 526 466 | 1 235 920 | 1 219 949 | 2 453 869 | 1 253 175 | 1 232 405 | 2 485 580 | 1 272 261 | 1 240 821 | 2 513 082 |
| 45-54 | 441 846 | 439 103 | 880 954 | 501 555 | 507 368 | 1 008 923 | 626 718 | 629 857 | 1 256 575 | 629 027 | 628 894 | 1 257 921 |
| 55-64 | 415 889 | 419 524 | 835 413 | 450 941 | 454 125 | 905 066 | 399 653 | 408 587 | 808 240 | 460 423 | 476 240 | 936 663 |
| 65 and over | 306 621 | 381 438 | 688 059 | 375 286 | 445 470 | 820 756 | 456 901 | 523 096 | 979 997 | 523 109 | 588 994 | 1 112 103 |
| Labour force | | | | | | | | | | | | |
| All ages | 2 389 239 | 1 878 500 | 4 268 039 | 2 477 332 | 1 948 491 | 4 425 823 | 2 577 481 | 2 032 217 | 4 609 698 | 2 614 168 | 2 045 623 | 4 659 791 |
| Less than 15 | 7 097 | 9 680 | 16 777 | 5 991 | 8 547 | 14 538 | 5 123 | 5 805 | 11 928 | 4 244 | 6 040 | 10 284 |
| 15-19 | 191 514 | 184 396 | 375 910 | 180 650 | 172 719 | 353 369 | 165 683 | 157 231 | 322 914 | 156 364 | 146 577 | 302 941 |
| 20-24 | 238 335 | 215 698 | 454 033 | 282 066 | 254 736 | 536 802 | 275 922 | 247 847 | 523 769 | 262 740 | 234 381 | 497 121 |
| 25-44 | 1 219 703 | 984 347 | 2 204 610 | 1 188 265 | 980 100 | 2 148 365 | 1 206 808 | 976 065 | 2 182 873 | 1 223 915 | 990 175 | 2 214 090 |
| 45-54 | 418 770 | 333 525 | 752 295 | 474 471 | 387 629 | 852 100 | 591 622 | 484 990 | 1 076 612 | 592 543 | 488 022 | 1 080 565 |
| 55-64 | 227 907 | 104 881 | 332 788 | 245 312 | 113 531 | 358 843 | 215 813 | 101 738 | 317 551 | 247 247 | 118 584 | 365 831 |
| 65 and over | 85 853 | 45 773 | 131 626 | 100 577 | 51 229 | 151 896 | 116 510 | 57 541 | 174 051 | 127 115 | 61 844 | 188 959 |
| Participation rates | | | | | | | | | | | | |
| All ages | 58.3 | 45.8 | 52.1 | 58.1 | 45.8 | 52.0 | 58.0 | 46.0 | 52.0 | 56.8 | 44.8 | 50.8 |
| Less than 15 | 0.7 | 1.0 | 0.9 | 0.6 | 0.9 | 0.8 | 0.5 | 0.7 | 0.6 | 0.4 | 0.6 | 0.5 |
| 15-19 | 53.7 | 53.6 | 53.7 | 51.8 | 51.5 | 51.7 | 49.8 | 49.4 | 49.6 | 47.9 | 47.3 | 47.6 |
| 20-24 | 80.0 | 74.5 | 77.3 | 79.6 | 74.3 | 77.0 | 79.4 | 74.1 | 76.8 | 79.2 | 73.8 | 76.6 |
| 25-44 | 96.4 | 78.1 | 87.3 | 96.3 | 78.7 | 87.6 | 96.3 | 79.2 | 87.8 | 96.2 | 79.8 | 88.1 |
| 45-54 | 94.8 | 75.9 | 85.4 | 94.6 | 76.4 | 85.4 | 94.4 | 77.0 | 85.7 | 94.2 | 77.6 | 85.9 |
| 55-64 | 54.8 | 25.0 | 39.8 | 54.4 | 25.0 | 39.6 | 54.0 | 24.9 | 39.3 | 53.7 | 24.9 | 39.1 |
| 65 and over | 28.0 | 12.0 | 19.1 | 26.8 | 11.5 | 18.5 | 25.5 | 11.0 | 17.8 | 24.3 | 10.5 | 17.0 |

CZECHOSLOVAKIA

| Age | 1965 | | | 1970 | | | 1975 | | | 1980 | | |
|----------------------------|-----------|-----------|------------|-----------|-----------|------------|-----------|-----------|------------|-----------|-----------|------------|
| | Males | Females | Total |
| Population | | | | | | | | | | | | |
| All ages | 6906 155 | 7 244 237 | 14 150 392 | 7 206 311 | 7 475 450 | 14 681 761 | 7 524 419 | 7 721 361 | 15 245 770 | 7 822 699 | 7 948 530 | 15 771 229 |
| Less than 15 | 1 833 273 | 1 750 838 | 3 584 111 | 1 776 948 | 1 692 776 | 3 469 724 | 1 845 511 | 1 753 245 | 3 598 757 | 1 963 354 | 1 862 560 | 3 825 914 |
| 15-19 | 643 058 | 620 451 | 1 263 509 | 663 190 | 635 346 | 1 298 536 | 593 513 | 568 719 | 1 162 232 | 560 900 | 535 317 | 1 096 217 |
| 20-24 | 527 449 | 513 373 | 1 040 822 | 639 115 | 617 620 | 1 256 735 | 659 523 | 632 729 | 1 292 252 | 590 592 | 566 627 | 1 157 219 |
| 25-44 | 1 851 971 | 1 890 072 | 3 742 043 | 1 869 167 | 1 867 121 | 3 736 288 | 2 022 074 | 1 986 190 | 4 008 264 | 2 219 502 | 2 158 678 | 4 378 180 |
| 45-54 | 717 599 | 764 446 | 1 482 045 | 756 360 | 807 830 | 1 564 190 | 925 664 | 977 654 | 1 903 318 | 880 978 | 905 244 | 1 786 222 |
| 55-64 | 777 474 | 869 219 | 1 646 693 | 803 568 | 881 202 | 1 684 770 | 640 735 | 705 975 | 1 346 710 | 685 804 | 753 633 | 1 439 437 |
| 65 and over | 555 331 | 835 838 | 1 391 169 | 697 963 | 973 555 | 1 671 518 | 837 389 | 1 096 848 | 1 934 237 | 921 569 | 1 166 471 | 2 088 050 |
| Labour force | | | | | | | | | | | | |
| All ages | 3 910 955 | 2 672 725 | 6 583 680 | 4 098 911 | 2 772 066 | 6 870 977 | 4 292 916 | 2 874 653 | 7 167 569 | 4 389 531 | 2 899 089 | 7 288 620 |
| Less than 15 | 1 833 | 1 751 | 3 584 | 1 777 | 1 693 | 3 470 | 1 846 | 1 753 | 3 599 | 1 963 | 1 863 | 3 826 |
| 15-19 | 276 515 | 312 087 | 588 602 | 275 224 | 306 872 | 582 096 | 236 512 | 263 317 | 500 129 | 215 386 | 237 681 | 453 067 |
| 20-24 | 481 033 | 346 527 | 827 560 | 388 316 | 415 658 | 995 974 | 597 528 | 424 561 | 1 022 089 | 533 046 | 379 073 | 912 119 |
| 25-44 | 1 805 672 | 1 171 845 | 2 977 517 | 1 820 569 | 1 166 951 | 2 987 520 | 1 969 500 | 1 249 314 | 3 218 814 | 2 159 575 | 1 368 602 | 3 528 177 |
| 45-54 | 681 719 | 477 779 | 1 159 498 | 717 029 | 508 125 | 1 225 154 | 875 678 | 619 833 | 1 495 511 | 831 643 | 578 451 | 1 410 094 |
| 55-64 | 536 457 | 304 227 | 840 684 | 550 444 | 307 539 | 857 983 | 435 700 | 245 679 | 681 379 | 463 604 | 262 264 | 725 868 |
| 65 and over | 127 726 | 58 509 | 186 235 | 153 552 | 65 228 | 218 780 | 175 852 | 70 198 | 246 050 | 184 314 | 71 155 | 255 469 |
| Participation rates | | | | | | | | | | | | |
| All ages | 56.6 | 36.9 | 46.5 | 56.9 | 37.1 | 46.8 | 57.1 | 37.2 | 47.0 | 56.1 | 36.5 | 46.2 |
| Less than 15 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 15-19 | 43.0 | 50.3 | 46.6 | 41.5 | 48.3 | 44.8 | 39.9 | 46.3 | 43.0 | 38.4 | 44.4 | 41.3 |
| 20-24 | 91.2 | 67.5 | 79.5 | 90.8 | 67.3 | 79.3 | 90.6 | 67.1 | 79.1 | 90.3 | 66.9 | 78.8 |
| 25-44 | 97.5 | 62.0 | 79.6 | 97.4 | 62.5 | 80.0 | 97.4 | 62.9 | 80.3 | 97.3 | 63.4 | 80.6 |
| 45-54 | 95.0 | 62.5 | 78.2 | 94.8 | 62.9 | 78.3 | 94.6 | 63.4 | 78.6 | 94.4 | 63.9 | 78.9 |
| 55-64 | 69.0 | 35.0 | 51.1 | 68.5 | 34.9 | 50.9 | 68.0 | 34.8 | 50.6 | 67.6 | 34.8 | 50.4 |
| 65 and over | 23.0 | 7.0 | 13.4 | 22.0 | 6.7 | 13.1 | 21.0 | 6.4 | 12.7 | 20.0 | 6.3 | 12.2 |

DENMARK

| Age | 1965 | | | 1970 | | | 1975 | | | 1980 | | |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | Males | Females | Total |
| Population (000s) | | | | | | | | | | | | |
| All ages | 2 346.8 | 2 385.5 | 4 732.3 | 2 441.2 | 2 478.1 | 4 919.3 | 2 542.4 | 2 574.6 | 5 117.0 | 2 636.7 | 2 662.1 | 5 298.8 |
| Less than 15 | 572.8 | 549.9 | 1 119.7 | 598.0 | 571.6 | 1 169.6 | 641.5 | 614.1 | 1 255.6 | 681.4 | 651.6 | 1 333.0 |
| 15-19 | 216.1 | 206.1 | 422.2 | 190.0 | 181.5 | 371.5 | 187.4 | 178.6 | 366.0 | 192.4 | 185.1 | 377.5 |
| 20-24 | 186.8 | 179.2 | 366.0 | 215.0 | 205.7 | 420.7 | 189.0 | 181.2 | 370.2 | 186.4 | 178.3 | 364.7 |
| 25-44 | 555.6 | 591.4 | 1 177.0 | 613.4 | 608.4 | 1 221.8 | 682.7 | 667.1 | 1 349.8 | 730.7 | 707.1 | 1 437.8 |
| 45-54 | 292.5 | 299.4 | 591.9 | 292.6 | 301.1 | 593.7 | 286.5 | 295.5 | 582.0 | 268.5 | 274.7 | 543.2 |
| 55-64 | 250.0 | 269.4 | 519.4 | 266.5 | 283.6 | 550.1 | 263.9 | 280.2 | 544.1 | 264.3 | 282.0 | 546.3 |
| 65 and over | 243.0 | 293.1 | 536.1 | 265.7 | 326.2 | 591.9 | 291.4 | 357.9 | 649.3 | 313.0 | 383.3 | 696.3 |
| Labour force (000s) | | | | | | | | | | | | |
| All ages | 1 486.5 | 672.5 | 2 159.0 | 1 516.4 | 682.2 | 2 198.6 | 1 529.6 | 681.7 | 2 211.3 | 1 537.6 | 689.6 | 2 227.2 |
| Less than 15 | 8.6 | 6.0 | 14.6 | 9.0 | 6.3 | 15.3 | 6.4 | 4.3 | 10.7 | 6.8 | 4.6 | 11.4 |
| 15-19 | 149.3 | 127.6 | 276.9 | 120.3 | 103.5 | 223.8 | 107.6 | 93.1 | 200.7 | 99.3 | 87.4 | 186.7 |
| 20-24 | 168.1 | 104.1 | 272.2 | 190.7 | 118.1 | 308.8 | 165.0 | 102.4 | 267.4 | 160.1 | 99.3 | 259.4 |
| 25-44 | 572.7 | 222.4 | 795.1 | 598.1 | 231.8 | 829.9 | 664.3 | 258.2 | 922.5 | 708.8 | 277.9 | 986.7 |
| 45-54 | 284.3 | 112.9 | 397.2 | 283.2 | 115.9 | 399.1 | 275.9 | 115.8 | 391.7 | 257.2 | 109.6 | 366.8 |
| 55-64 | 224.0 | 78.1 | 302.1 | 233.5 | 82.8 | 316.3 | 226.2 | 82.1 | 308.3 | 221.2 | 83.2 | 304.4 |
| 65 and over | 79.5 | 21.4 | 100.9 | 81.6 | 23.8 | 105.4 | 84.2 | 25.8 | 110.0 | 84.2 | 27.6 | 111.8 |
| Participation rates | | | | | | | | | | | | |
| All ages | 63.3 | 28.2 | 45.6 | 62.1 | 27.5 | 44.7 | 60.2 | 26.5 | 43.2 | 58.3 | 25.9 | 42.0 |
| Less than 15 | 1.5 | 1.1 | 1.3 | 1.5 | 1.1 | 1.3 | 1.0 | 0.7 | 0.9 | 1.0 | 0.7 | 0.9 |
| 15-19 | 69.1 | 61.9 | 65.6 | 63.3 | 57.0 | 60.2 | 57.4 | 52.1 | 54.8 | 51.6 | 47.2 | 49.5 |
| 20-24 | 90.0 | 58.1 | 74.4 | 88.7 | 57.4 | 73.4 | 87.3 | 56.5 | 72.2 | 85.9 | 55.7 | 71.1 |
| 25-44 | 97.8 | 37.6 | 67.6 | 97.5 | 38.1 | 67.9 | 97.3 | 38.7 | 68.3 | 97.0 | 39.3 | 68.6 |
| 45-54 | 97.2 | 37.7 | 67.1 | 96.8 | 38.5 | 67.2 | 96.3 | 39.2 | 67.3 | 95.8 | 39.9 | 67.5 |
| 55-64 | 89.6 | 29.0 | 58.9 | 87.6 | 29.2 | 57.5 | 85.7 | 29.3 | 56.7 | 83.7 | 29.5 | 55.7 |
| 65 and over | 32.7 | 7.3 | 18.8 | 30.7 | 7.3 | 17.8 | 28.9 | 7.2 | 16.9 | 26.9 | 7.2 | 16.1 |

Source: OECD, *Demographic Trends, 1965-1980, Supplement: Country Reports* (Paris, 1966), p. 53. The projections of the labour force are ILO provisional estimates based on the reported sex, age specific participation rates observed in the population census of 1960 for Denmark and linked to the sex, age specific trends in the ILO projections for the region Northern Europe, 1950-60.

FINLAND

| Age | 1965 | | | 1970 | | | 1975 | | | 1980 | | |
|----------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | Males | Females | Total |
| Population | | | | | | | | | | | | |
| All ages | 2 233 232 | 2 385 900 | 4 619 132 | 2 316 870 | 2 460 901 | 4 777 771 | 2 389 318 | 2 525 146 | 4 914 464 | 2 454 493 | 2 580 276 | 5 034 769 |
| Less than 15 | 638 593 | 612 893 | 1 251 486 | 625 497 | 599 431 | 1 224 928 | 628 468 | 601 981 | 1 230 449 | 632 845 | 606 234 | 1 239 079 |
| 15-19 | 249 142 | 240 465 | 489 607 | 220 364 | 212 965 | 433 329 | 204 077 | 196 744 | 400 821 | 204 454 | 196 767 | 401 221 |
| 20-24 | 185 218 | 178 806 | 364 024 | 244 456 | 236 176 | 480 632 | 215 891 | 208 742 | 424 633 | 199 737 | 192 557 | 392 294 |
| 25-44 | 585 055 | 587 113 | 1 172 168 | 616 548 | 598 846 | 1 215 394 | 695 378 | 671 908 | 1 367 286 | 756 353 | 732 579 | 1 488 932 |
| 45-54 | 232 457 | 279 011 | 511 468 | 237 567 | 281 184 | 518 751 | 265 498 | 289 541 | 555 039 | 264 492 | 270 301 | 534 793 |
| 55-64 | 202 789 | 255 867 | 458 656 | 211 244 | 270 294 | 481 538 | 194 205 | 257 772 | 451 977 | 199 386 | 260 142 | 459 528 |
| 65 and over | 139 978 | 231 745 | 371 723 | 161 194 | 262 005 | 423 199 | 185 801 | 298 458 | 484 259 | 197 226 | 321 696 | 518 922 |
| Labour force (000s) | | | | | | | | | | | | |
| All ages | 1 287.5 | 834.0 | 2 121.5 | 1 339.6 | 864.8 | 2 204.4 | 1 366.7 | 879.8 | 2 246.5 | 1 390.6 | 894.3 | 2 284.9 |
| Less than 15 | — | — | — | — | — | — | — | — | — | — | — | — |
| 15-19 | 129.3 | 85.9 | 215.2 | 101.7 | 65.9 | 167.6 | 74.3 | 50.4 | 124.7 | 59.1 | 43.0 | 102.1 |
| 20-24 | 154.2 | 108.8 | 263.0 | 198.4 | 141.7 | 340.1 | 170.6 | 124.0 | 294.6 | 153.3 | 113.9 | 267.2 |
| 25-44 | 565.3 | 342.8 | 908.6 | 595.6 | 356.8 | 952.4 | 670.8 | 408.2 | 1 079.0 | 731.0 | 451.4 | 1 182.4 |
| 45-54 | 221.3 | 163.0 | 384.8 | 226.8 | 166.0 | 392.8 | 253.4 | 172.4 | 425.8 | 252.2 | 162.4 | 414.6 |
| 55-64 | 169.0 | 109.8 | 278.8 | 170.4 | 111.4 | 281.8 | 152.1 | 102.7 | 254.8 | 155.9 | 104.1 | 260.0 |
| 65 and over | 47.5 | 23.5 | 71.0 | 46.6 | 23.1 | 69.7 | 45.4 | 22.2 | 67.6 | 39.1 | 19.6 | 58.7 |
| Participation rates | | | | | | | | | | | | |
| All ages | 57.7 | 35.0 | 45.9 | 57.8 | 35.1 | 46.1 | 57.2 | 34.8 | 45.7 | 56.7 | 34.7 | 45.4 |
| Less than 15 | — | — | — | — | — | — | — | — | — | — | — | — |
| 15-19 | 51.9 | 35.7 | 44.0 | 46.2 | 30.9 | 38.7 | 36.4 | 25.6 | 31.1 | 28.9 | 21.9 | 25.4 |
| 20-24 | 83.3 | 60.8 | 72.2 | 81.2 | 60.0 | 70.8 | 79.0 | 59.4 | 69.4 | 76.8 | 59.2 | 68.1 |
| 25-44 | 96.7 | 58.4 | 77.5+ | 96.6 | 59.6 | 78.4 | 96.5- | 60.8 | 78.9 | 96.6 | 61.6 | 79.4 |
| 45-54 | 95.4 | 58.4 | 75.2 | 95.5- | 59.0 | 75.7 | 95.4 | 59.5+ | 76.7 | 95.4 | 60.1 | 77.5+ |
| 55-64 | 83.3 | 42.9 | 60.8 | 80.7 | 41.2 | 58.5+ | 78.3 | 39.8 | 56.4 | 78.2 | 40.0 | 56.6 |
| 65 and over | 33.9 | 10.1 | 19.1 | 28.9 | 8.8 | 16.5- | 24.4 | 7.4 | 14.0 | 19.8 | 6.1 | 11.3 |

Source: *Bulletin of Statistics, Finland*, No. 10, 1953 "A Projection of the Economically Active Population of Finland to 1990, Summary", Labour Research Bureau, *Finnish Labour Studies* I, p. 31.

FRANCE

| Age | 1965 1 | | | 1970 1 | | | 1975 1 | | | 1980 1 | | |
|---------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | Males | Females | Total |
| Population (000s) | | | | | | | | | | | | |
| All ages | 23 473.9 | 24 732.7 | 48 206.6 | 24 335.1 | 25 501.9 | 49 837.0 | 25 353.3 | 26 369.7 | 51 723.0 | 26 496.0 | 27 313.5 | 53 814.5 |
| Less than 15 | 6 265.6 | 6 035.3 | 12 301.9 | 6 271.6 | 6 033.9 | 12 305.5 | 6 442.6 | 6 193.6 | 12 636.2 | 6 755.4 | 6 488.1 | 13 243.5 |
| 15-19 | 2 035.0 | 1 959.0 | 3 994.0 | 2 087.2 | 2 019.4 | 4 106.6 | 2 073.7 | 2 001.4 | 4 075.1 | 2 072.8 | 1 997.1 | 4 069.9 |
| 20-24 | 1 462.8 | 1 379.1 | 2 841.9 | 2 023.9 | 1 954.5 | 3 978.4 | 2 077.1 | 2 015.4 | 4 092.5 | 2 064.7 | 1 997.8 | 4 062.5 |
| 25-44 | 6 609.3 | 6 392.8 | 13 002.1 | 6 333.2 | 6 059.5 | 12 392.7 | 6 640.3 | 6 358.7 | 12 999.0 | 7 002.1 | 6 749.9 | 13 752.0 |
| 45-54 | 2 330.1 | 2 422.1 | 4 752.2 | 2 510.8 | 2 573.1 | 5 083.9 | 3 200.9 | 3 234.4 | 6 435.3 | 3 199.6 | 3 159.2 | 6 358.8 |
| 55-64 | 2 585.4 | 2 866.8 | 5 452.2 | 2 570.8 | 2 859.3 | 5 429.9 | 2 051.7 | 2 280.8 | 4 332.5 | 2 267.4 | 2 437.2 | 4 704.6 |
| 65 and over | 2 185.7 | 3 616.6 | 5 852.3 | 2 537.6 | 4 002.4 | 6 540.0 | 2 867.0 | 4 285.4 | 7 152.4 | 3 134.0 | 4 489.2 | 7 623.2 |
| Labour force (000s) | | | | | | | | | | | | |
| All ages | 13 632.1 | 6 870.6 | 20 502.7 | 13 711.7 | 7 051.5 | 20 763.2 | 14 087.4 | 7 367.1 | 21 454.5 | 14 537.5 | 7 678.0 | 22 215.5 |
| Less than 15 ² | 185.1 | 52.7 | 157.8 | — | — | — | — | — | — | — | — | — |
| 15-19 | 1 173.8 | 865.1 | 2 038.9 | 997.3 | 777.9 | 1 775.2 | 917.1 | 686.9 | 1 604.0 | 853.0 | 649.7 | 1 502.7 |
| 20-24 | 1 308.6 | 848.4 | 2 157.0 | 1 790.2 | 1 240.2 | 3 030.4 | 1 822.2 | 1 270.2 | 3 092.4 | 1 787.9 | 1 221.7 | 3 009.6 |
| 25-44 | 6 401.5 | 2 617.8 | 9 049.3 | 6 131.2 | 2 596.5 | 8 727.7 | 6 423.6 | 2 893.1 | 9 316.7 | 6 777.3 | 3 188.8 | 9 966.1 |
| 45-54 | 2 177.7 | 1 076.9 | 3 254.6 | 2 362.5 | 1 102.0 | 3 467.5 | 3 001.8 | 1 446.3 | 4 448.1 | 3 001.1 | 1 471.3 | 4 472.4 |
| 55-64 | 1 966.0 | 1 039.4 | 3 005.4 | 1 951.8 | 1 012.1 | 2 963.9 | 1 510.6 | 757.2 | 2 267.8 | 1 786.9 | 849.5 | 2 636.4 |
| 65 and over | 499.4 | 340.3 | 839.7 | 478.7 | 322.8 | 801.5 | 412.1 | 313.4 | 725.5 | 331.3 | 297.0 | 628.3 |
| Participation rates | | | | | | | | | | | | |
| All ages | 58.1 | 27.8 | 42.5 | 56.3 | 27.7 | 41.7 | 55.6 | 27.9 | 41.5 | 54.9 | 28.1 | 41.3 |
| Less than 15 | 1.7 | 0.9 | 1.3 | — | — | — | — | — | — | — | — | — |
| 15-19 | 57.7 | 44.2 | 51.0 | 47.8 | 38.5 | 43.2 | 44.2 | 34.3 | 39.4 | 41.1 | 32.5 | 36.9 |
| 20-24 | 89.5 | 61.5 | 75.9 | 88.5 | 63.5 | 76.2 | 87.7 | 63.0 | 75.6 | 86.6 | 61.2 | 74.1 |
| 25-44 | 96.9 | 41.4 | 69.6 | 96.8 | 42.9 | 70.4 | 96.7 | 45.5 | 71.7 | 96.8 | 47.2 | 72.5 |
| 45-54 | 93.5 | 44.3 | 68.3 | 94.1 | 42.8 | 68.2 | 93.8 | 44.7 | 69.1 | 93.8 | 46.6 | 70.3 |
| 55-64 | 76.0 | 36.3 | 55.1 | 75.9 | 35.4 | 54.6 | 73.6 | 33.2 | 52.3 | 78.8 | 34.9 | 56.0 |
| 65 and over | 22.8 | 5.3 | 14.3 | 18.9 | 8.1 | 12.3 | 14.4 | 7.3 | 10.1 | 10.6 | 6.6 | 8.2 |

Source: OECD: *Demographic Trends, 1965-1980, Supplement: Country Reports*, pp. 107 and 111. 1 1 January. ² Persons aged 14 years only.

| Global corrections distributed by the ILO as follows: | Age | Scholarisation | | | | Age | Increase in employment of women | | Age | Retirement | | | | | |
|--------------------------------------------------------------------|-------|-----------------|-------|-----------------|--------|-------|---------------------------------|-------|-------------|-----------------|-------|-----------------|-------|--|--|
| | | Males Females | | Males Females | | | Females Females | | | Males Females | | Males Females | | | |
| | | 1975 | | 1980 | | | 1975 1980 | | | 1975 | | 1980 | | | |
| | | 15-19 | -66.6 | 58.1 | -133.2 | 25-44 | 127.6 | 262.0 | 55-64 | 108.4 | -23.8 | 216.9 | -47.7 | | |
| Correction effects on the participation rates in percentage points | 20-24 | 22.2 | -19.3 | -44.4 | -38.7 | 45-54 | 63.8 | 120.9 | 65 and over | -108.4 | -23.8 | - | -47.6 | | |
| | 15-19 | -3.7 | -2.9 | -6.5 | -5.9 | 25-44 | 2.0 | 3.9 | 55-64 | -3.8 | -1.0 | -6.9 | -1.1 | | |
| | 20-24 | -1.1 | -0.9 | -2.1 | -1.9 | 45-54 | 2.0 | 3.9 | 65 and over | - | -0.6 | - | - | | |

GERMANY, EASTERN

| Age | 1965 | | | 1970 | | | 1975 | | | 1980 | | |
|----------------------------|-----------|-----------|------------|-----------|-----------|------------|-----------|-----------|------------|-----------|-----------|------------|
| | Males | Females | Total |
| Population | | | | | | | | | | | | |
| All ages | 7 767 604 | 9 262 327 | 17 029 931 | 7 966 155 | 9 291 094 | 17 257 249 | 8 159 773 | 9 289 548 | 17 449 321 | 8 380 764 | 9 299 406 | 17 680 170 |
| Less than 15 | 2 077 176 | 1 977 125 | 4 054 301 | 2 072 970 | 1 973 391 | 4 046 361 | 2 078 692 | 1 976 787 | 4 055 479 | 2 067 515 | 1 961 323 | 4 028 838 |
| 15-19 | 472 871 | 454 123 | 926 994 | 666 689 | 634 069 | 1 300 758 | 669 515 | 638 519 | 1 308 034 | 722 443 | 690 972 | 1 413 415 |
| 20-24 | 588 909 | 583 259 | 1 172 168 | 470 008 | 452 078 | 922 086 | 663 012 | 631 464 | 1 294 476 | 666 322 | 636 245 | 1 302 567 |
| 25-44 | 2 020 505 | 2 297 173 | 4 317 678 | 2 229 697 | 2 291 435 | 4 521 132 | 2 226 870 | 2 192 342 | 4 419 212 | 2 344 783 | 2 287 687 | 4 632 470 |
| 45-54 | 648 765 | 1 042 327 | 1 691 092 | 584 844 | 946 395 | 1 531 239 | 783 664 | 1 074 736 | 1 858 400 | 946 242 | 1 027 351 | 1 973 593 |
| 55-64 | 1 005 005 | 1 376 428 | 2 381 433 | 842 905 | 1 298 523 | 2 141 428 | 578 343 | 961 869 | 1 540 212 | 529 400 | 881 599 | 1 410 999 |
| 65 and over | 954 373 | 1 531 892 | 2 486 265 | 1 099 042 | 1 695 203 | 2 794 245 | 1 159 677 | 1 813 831 | 2 973 508 | 1 104 059 | 1 814 229 | 2 918 288 |
| Labour force | | | | | | | | | | | | |
| All ages | 4 588 189 | 2 954 766 | 7 542 955 | 4 626 351 | 2 908 263 | 7 534 614 | 4 743 539 | 2 946 919 | 7 690 458 | 4 952 702 | 2 967 842 | 7 920 544 |
| Less than 15 | 56 084 | 43 497 | 99 581 | 49 751 | 39 467 | 89 218 | 39 495 | 31 629 | 71 124 | 33 080 | 23 535 | 56 615 |
| 15-19 | 363 165 | 294 272 | 657 437 | 494 017 | 395 025 | 889 042 | 476 695 | 380 557 | 857 252 | 494 874 | 394 545 | 889 419 |
| 20-24 | 550 041 | 415 864 | 965 905 | 437 107 | 321 428 | 758 535 | 615 275 | 447 708 | 1 062 983 | 616 348 | 449 825 | 1 066 173 |
| 25-44 | 1 951 808 | 1 219 799 | 3 171 607 | 2 151 658 | 1 225 918 | 3 377 576 | 2 148 930 | 1 181 672 | 3 330 602 | 2 260 371 | 1 242 214 | 3 502 585 |
| 45-54 | 612 434 | 484 682 | 1 097 116 | 550 923 | 442 913 | 993 836 | 736 644 | 507 275 | 1 243 919 | 887 575 | 487 992 | 1 375 567 |
| 55-64 | 816 064 | 363 377 | 1 179 441 | 680 224 | 342 810 | 1 023 034 | 463 253 | 252 972 | 716 225 | 420 873 | 231 850 | 652 723 |
| 65 and over | 238 593 | 133 275 | 371 868 | 262 671 | 140 702 | 403 373 | 263 247 | 145 106 | 408 353 | 239 581 | 137 881 | 377 462 |
| Participation rates | | | | | | | | | | | | |
| All ages | 59.1 | 31.9 | 44.3 | 58.1 | 31.3 | 43.7 | 58.1 | 31.7 | 44.1 | 59.1 | 31.9 | 44.8 |
| Less than 15 | 2.7 | 2.2 | 2.4 | 2.0 | 2.2 | 1.9 | 1.6 | 1.8 | 1.6 | 1.2 | 1.4 | |
| 15-19 | 76.8 | 64.8 | 70.9 | 74.1 | 62.3 | 68.3 | 71.2 | 59.6 | 65.5 | 68.5 | 57.1 | 62.9 |
| 20-24 | 93.4 | 71.3 | 82.4 | 93.0 | 71.1 | 82.3 | 92.8 | 70.9 | 82.1 | 92.5 | 70.7 | 81.9 |
| 25-44 | 96.6 | 53.1 | 73.5 | 96.5 | 53.5 | 74.7 | 96.5 | 53.9 | 75.4 | 96.4 | 54.3 | 75.6 |
| 45-54 | 94.4 | 46.5 | 64.9 | 94.2 | 46.8 | 64.9 | 94.0 | 47.2 | 66.9 | 93.8 | 47.5 | 69.7 |
| 55-64 | 81.2 | 26.4 | 49.5 | 80.7 | 26.4 | 47.8 | 80.1 | 26.3 | 46.5 | 79.5 | 26.3 | 46.3 |
| 65 and over | 25.0 | 8.7 | 15.0 | 23.9 | 8.3 | 14.4 | 22.7 | 8.0 | 13.7 | 21.7 | 7.6 | 12.9 |

FEDERAL REPUBLIC OF GERMANY

| Age | 1965 | | | 1970 | | | 1975 | | | 1980 | | |
|----------------------------|--------|---------|--------|--------|---------|--------|--------|---------|--------|--------|---------|--------|
| | Males | Females | Total |
| Population (000s) | | | | | | | | | | | | |
| All ages | 27 374 | 30 490 | 57 864 | 28 131 | 31 034 | 59 165 | 28 609 | 31 315 | 59 924 | 29 206 | 31 476 | 60 682 |
| Less than 15 | 6 657 | 6 332 | 12 989 | 7 059 | 6 709 | 13 768 | 7 152 | 6 796 | 13 948 | 6 963 | 6 612 | 13 575 |
| 15-19 | 1 785 | 1 705 | 3 490 | 1 986 | 1 896 | 3 882 | 2 174 | 2 071 | 4 245 | 2 448 | 2 338 | 4 786 |
| 20-24 | 2 237 | 2 111 | 4 348 | 1 770 | 1 700 | 3 470 | 1 970 | 1 890 | 3 860 | 2 156 | 2 064 | 4 220 |
| 25-44 | 7 954 | 8 344 | 16 298 | 8 459 | 8 162 | 16 621 | 8 261 | 7 836 | 16 097 | 8 231 | 7 880 | 16 111 |
| 45-54 | 2 747 | 3 719 | 6 466 | 2 639 | 3 640 | 6 279 | 3 398 | 4 102 | 7 500 | 3 656 | 3 679 | 7 335 |
| 55-64 | 3 324 | 4 140 | 7 464 | 3 146 | 4 271 | 7 417 | 2 290 | 3 455 | 5 745 | 2 333 | 3 405 | 5 738 |
| 65 and over | 2 670 | 4 141 | 6 811 | 3 075 | 4 655 | 7 730 | 3 364 | 5 166 | 8 530 | 3 418 | 5 497 | 8 915 |
| Labour force (000s) | | | | | | | | | | | | |
| All ages | 17 026 | 9 643 | 26 669 | 16 984 | 9 208 | 26 192 | 17 216 | 9 206 | 26 422 | 17 756 | 9 395 | 27 151 |
| Less than 15 ¹ | 34 | 31 | 65 | 2 | 1 | 3 | 2 | 1 | 3 | 2 | 1 | 3 |
| 15-19 | 1 211 | 1 124 | 2 335 | 1 297 | 1 205 | 2 502 | 1 421 | 1 317 | 2 738 | 1 600 | 1 486 | 3 086 |
| 20-24 | 2 001 | 1 501 | 3 502 | 1 569 | 1 188 | 2 757 | 1 748 | 1 317 | 3 065 | 1 912 | 1 436 | 3 348 |
| 25-44 | 7 728 | 3 913 | 11 641 | 8 222 | 3 762 | 11 984 | 8 043 | 3 603 | 11 646 | 8 005 | 3 599 | 11 604 |
| 45-54 | 2 622 | 1 570 | 4 192 | 2 529 | 1 544 | 4 073 | 3 252 | 1 708 | 4 960 | 3 497 | 1 535 | 5 032 |
| 55-64 | 2 800 | 1 190 | 3 990 | 2 652 | 1 187 | 3 839 | 1 988 | 911 | 2 899 | 2 002 | 976 | 2 978 |
| 65 and over | 630 | 314 | 944 | 713 | 321 | 1 034 | 762 | 349 | 1 111 | 738 | 362 | 1 100 |
| Participation rates | | | | | | | | | | | | |
| All ages | 62.2 | 31.6 | 46.1 | 60.4 | 29.7 | 44.3 | 60.2 | 29.4 | 44.1 | 60.8 | 29.8 | 44.7 |
| Less than 15 | 0.5 | 0.5 | 0.5 | — | — | — | — | — | — | — | — | — |
| 15-19 ² | 67.8 | 65.9 | 66.9 | 65.3 | 63.6 | 64.5— | 65.4 | 63.6 | 64.5— | 65.4 | 63.6 | 64.5— |
| 20-24 ² | 89.5 | 71.1 | 80.5 | 88.6 | 69.9 | 79.5— | 88.7 | 69.7 | 79.4 | 88.7 | 69.6 | 79.3 |
| 25-44 | 97.2 | 46.9 | 71.4 | 97.2 | 46.1 | 72.1 | 97.4 | 46.0 | 72.3 | 97.3 | 45.7 | 72.0 |
| 45-54 ² | 95.4 | 42.2 | 64.8 | 95.8 | 42.4 | 64.9 | 95.7 | 41.6 | 66.1 | 95.7 | 41.7 | 68.6 |
| 55-64 | 84.2 | 28.7 | 53.5— | 84.3 | 27.8 | 51.8 | 86.8 | 26.4 | 50.5— | 85.8 | 28.7 | 51.9 |
| 65 and over | 23.6 | 7.6 | 13.9 | 23.2 | 6.9 | 13.4 | 22.7 | 6.8 | 13.0 | 21.6 | 6.6 | 12.3 |

Source: OECD: *Demographic Trends, 1965-1980*. Supplement: *Country Reports*, pp. 23 and 27.

¹ Fourteen years of age only.

² Decline in participation rates is too modest according to ILO estimates.

Note: As each figure is rounded off to the nearest 1 000, in some cases the sum of the entries may differ from the totals shown.

GREECE

| Age | 1965 | | | 1970 | | | 1975 | | | 1980 | | |
|---------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | Males | Females | Total |
| Population | | | | | | | | | | | | |
| All ages | 4 136 730 | 4 374 976 | 8 511 706 | 4 239 599 | 4 489 901 | 8 729 500 | 4 316 401 | 4 545 987 | 8 862 388 | 4 423 751 | 4 632 207 | 9 055 958 |
| Less than 15 | 1 121 446 | 1 060 072 | 2 181 518 | 1 121 557 | 1 063 544 | 2 185 101 | 1 103 028 | 1 048 475 | 2 151 503 | 1 080 569 | 1 028 949 | 2 109 518 |
| 15-19 | 370 951 | 359 005 | 729 956 | 356 811 | 340 799 | 697 610 | 364 444 | 346 920 | 711 364 | 336 324 | 347 782 | 714 106 |
| 20-24 | 290 911 | 291 937 | 582 848 | 361 080 | 350 858 | 711 938 | 347 882 | 330 562 | 678 444 | 357 885 | 341 445 | 699 330 |
| 25-44 | 1 183 928 | 1 325 319 | 2 509 247 | 1 185 324 | 1 323 583 | 2 508 907 | 1 195 064 | 1 287 078 | 2 482 142 | 1 209 745 | 1 249 758 | 2 459 503 |
| 45-54 | 444 256 | 486 078 | 930 334 | 418 608 | 475 098 | 893 706 | 497 605 | 563 397 | 1 061 002 | 563 642 | 653 945 | 1 217 587 |
| 55-64 | 393 998 | 419 217 | 813 215 | 414 075 | 451 978 | 866 053 | 386 278 | 438 146 | 824 424 | 370 352 | 430 366 | 800 718 |
| 65 and over | 331 240 | 433 348 | 764 588 | 382 144 | 484 041 | 866 185 | 422 100 | 531 405 | 953 509 | 475 234 | 579 962 | 1 055 196 |
| Labour force ¹ | | | | | | | | | | | | |
| All ages | 2 592 477 | 1 097 954 | 3 690 431 | 2 611 791 | 1 132 936 | 3 744 721 | 2 641 805 | 1 116 351 | 3 758 156 | 2 694 074 | 1 110 918 | 3 804 992 |
| Less than 15 ² | 65 620 | 51 812 | 117 432 | 48 279 | 38 745 | 87 024 | 41 288 | 31 596 | 72 884 | 33 688 | 24 545 | 58 233 |
| 15-19 | 248 537 | 60 313 | 308 850 | 206 950 | 51 120 | 258 070 | 208 378 | 49 038 | 257 416 | 206 468 | 46 167 | 252 635 |
| 20-24 | 253 093 | 152 391 | 405 484 | 325 668 | 183 148 | 508 816 | 310 700 | 172 553 | 483 253 | 319 202 | 178 234 | 497 436 |
| 25-44 | 1 146 239 | 520 644 | 1 666 883 | 1 147 220 | 547 490 | 1 694 710 | 1 156 061 | 538 682 | 1 694 743 | 1 170 864 | 522 757 | 1 693 621 |
| 45-54 | 415 379 | 167 697 | 583 076 | 391 398 | 171 372 | 562 770 | 456 260 | 203 633 | 668 893 | 527 006 | 235 671 | 762 677 |
| 55-64 | 321 502 | 101 870 | 423 372 | 337 885 | 105 064 | 442 949 | 315 203 | 91 208 | 406 411 | 302 208 | 80 024 | 382 232 |
| 65 and over | 142 107 | 43 227 | 185 334 | 154 391 | 35 991 | 190 382 | 144 915 | 29 641 | 174 556 | 134 638 | 23 520 | 158 158 |
| Participation rates | | | | | | | | | | | | |
| All ages | 62.7 | 25.1 | 43.4 | 61.6 | 25.2 | 43.2 | 61.2 | 24.6 | 42.4 | 60.9 | 24.0 | 42.0 |
| Less than 15 | 5.9 | 4.9 | 5.4 | 4.3 | 3.6 | 4.0 | 3.7 | 3.0 | 3.4 | 3.1 | 2.4 | 2.8 |
| 15-19 | 67.0 | 16.8 | 42.3 | 58.0 | 15.0 | 37.0 | 57.2 | 14.1 | 36.2 | 56.4 | 13.3 | 35.4 |
| 20-24 | 90.3 | 52.2 | 69.6 | 90.2 | 52.2 | 71.5 | 89.3 | 52.2 | 71.2 | 89.2 | 52.2 | 71.1 |
| 25-44 | 96.8 | 39.3 | 66.4 | 96.8 | 41.4 | 67.5 | 96.7 | 41.9 | 68.3 | 96.8 | 41.8 | 68.9 |
| 45-54 | 93.5 | 34.5 | 62.7 | 93.5 | 36.1 | 63.0 | 91.7 | 36.1 | 63.0 | 93.5 | 36.0 | 62.6 |
| 55-64 | 81.6 | 24.3 | 52.1 | 81.6 | 23.2 | 51.1 | 81.6 | 20.8 | 49.3 | 81.6 | 18.6 | 47.7 |
| 65 and over | 42.9 | 10.0 | 24.2 | 40.4 | 7.4 | 22.0 | 34.3 | 5.6 | 18.3 | 28.3 | 4.1 | 15.0 |

Source: OECD: *Demographic Trends, 1965-1980, Supplement: Country Reports*, pp. 124-125, 128-129.

| 3 | Estimated global deductions 1975 and 1980 for increased scholarisation and earlier retirement have been distributed over the age groups less than 15 and 15-19 for scholarisation, and 55-64 and 65 and over for earlier retirement | Scholarisation | | | | Age | Retirement | | | | |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------|--------|--------|----------|------------|--------|--------|--------|--|
| | | 1975 | | 1980 | | | 1975 | | 1980 | | |
| | | M | F | M | F | | M | F | M | F | |
| | { Less than 15 | 7 000 | 7 000 | 14 000 | 14 000 | 55-64 | 10 000 | 10 000 | 20 000 | 20 000 | |
| | { 15-19 | 3 000 | 3 000 | 6 000 | 6 000 | 65 and + | 30 000 | 10 000 | 60 000 | 20 000 | |
| | Correction effects in percentage points | -0.6 | -0.6 | -1.2 | -1.3 | 55-64 | - | -2.2 | - | -4.4 | |
| | { 15-19 | -0.8 | -0.8 | -1.6 | -1.7 | 65 and + | -7.0 | -1.9 | -12.3 | -3.4 | |

² Persons aged 10-14 years.

HUNGARY

| Age | 1965 | | | 1970 | | | 1975 | | | 1980 | | |
|----------------------------|-----------|-----------|------------|-----------|-----------|------------|-----------|-----------|------------|-----------|-----------|------------|
| | Males | Females | Total |
| Population | | | | | | | | | | | | |
| All ages | 4 917 411 | 5 244 525 | 10 147 936 | 4 998 889 | 5 303 118 | 10 302 007 | 5 117 663 | 5 378 657 | 10 496 320 | 5 224 404 | 5 439 336 | 10 663 740 |
| Less than 15 | 1 209 577 | 1 152 264 | 2 361 841 | 1 071 105 | 1 016 847 | 2 087 952 | 1 041 959 | 987 629 | 2 029 588 | 1 101 366 | 1 044 866 | 2 146 152 |
| 15-19 | 407 218 | 394 154 | 801 372 | 468 655 | 449 860 | 918 545 | 404 542 | 385 991 | 790 533 | 326 254 | 309 065 | 635 319 |
| 20-24 | 374 469 | 371 605 | 746 074 | 404 627 | 392 289 | 796 916 | 466 140 | 448 039 | 914 179 | 402 617 | 384 618 | 787 235 |
| 25-44 | 1 395 662 | 1 486 184 | 2 881 846 | 1 453 637 | 1 453 637 | 2 854 109 | 1 434 647 | 1 457 487 | 2 892 134 | 1 549 383 | 1 540 202 | 3 089 585 |
| 45-54 | 534 276 | 606 247 | 1 140 523 | 559 665 | 628 394 | 1 188 059 | 687 676 | 748 545 | 1 436 221 | 672 895 | 713 570 | 1 386 465 |
| 55-64 | 545 599 | 621 201 | 1 166 800 | 571 623 | 660 381 | 1 232 004 | 477 359 | 560 163 | 1 037 522 | 507 574 | 586 114 | 1 093 688 |
| 65 and over | 436 610 | 612 870 | 1 049 480 | 522 712 | 701 710 | 1 224 422 | 605 340 | 790 803 | 1 396 143 | 664 315 | 860 981 | 1 525 296 |
| Labour force | | | | | | | | | | | | |
| All ages | 3 271 349 | 1 752 223 | 5 023 572 | 3 408 107 | 1 805 636 | 5 213 743 | 3 507 891 | 1 843 874 | 5 351 765 | 3 513 905 | 1 811 956 | 5 325 861 |
| Less than 15 | 19 553 | 9 218 | 28 571 | 14 995 | 8 135 | 23 130 | 11 462 | 5 926 | 17 388 | 11 013 | 5 224 | 16 237 |
| 15-19 | 310 300 | 199 442 | 509 742 | 344 484 | 218 632 | 563 116 | 286 011 | 179 485 | 465 497 | 221 853 | 137 843 | 359 696 |
| 20-24 | 355 745 | 201 754 | 560 499 | 382 777 | 215 367 | 598 144 | 439 570 | 245 077 | 684 647 | 378 863 | 210 001 | 588 864 |
| 25-44 | 1 377 518 | 744 578 | 2 122 096 | 1 380 855 | 734 087 | 2 114 952 | 1 414 562 | 740 403 | 2 154 965 | 1 526 142 | 788 583 | 2 314 725 |
| 45-54 | 521 453 | 295 849 | 817 302 | 545 114 | 308 542 | 853 656 | 668 421 | 370 536 | 1 038 951 | 652 708 | 356 071 | 1 008 779 |
| 55-64 | 449 028 | 176 421 | 625 449 | 467 016 | 187 548 | 663 564 | 387 616 | 158 526 | 546 142 | 409 105 | 165 284 | 574 389 |
| 65 and over | 237 952 | 121 961 | 359 913 | 272 856 | 133 325 | 406 181 | 300 249 | 143 926 | 444 175 | 314 221 | 148 950 | 463 171 |
| Participation rates | | | | | | | | | | | | |
| All ages | 66.7 | 33.4 | 49.5 | 68.2 | 34.0 | 50.6 | 68.5 | 34.3 | 51.0 | 67.3 | 33.3 | 49.9 |
| Less than 15 | 1.6 | 0.8 | 1.2 | 1.4 | 0.8 | 1.1 | 1.1 | 0.6 | 0.9 | 1.0 | 0.5 | 0.8 |
| 15-19 | 75.2 | 50.6 | 63.6 | 73.5 | 48.6 | 61.3 | 70.7 | 46.5 | 58.9 | 68.0 | 44.6 | 56.6 |
| 20-24 | 95.0 | 55.1 | 75.1 | 94.6 | 54.9 | 75.1 | 94.3 | 54.7 | 74.9 | 94.1 | 54.6 | 74.8 |
| 25-44 | 98.7 | 50.1 | 73.6 | 98.6 | 50.5 | 74.1 | 98.6 | 50.8 | 74.5 | 98.5 | 51.2 | 74.9 |
| 45-54 | 97.6 | 48.8 | 71.7 | 97.4 | 49.1 | 71.9 | 97.2 | 49.5 | 72.3 | 97.0 | 49.9 | 72.8 |
| 55-64 | 82.3 | 28.4 | 53.6 | 81.7 | 28.4 | 53.9 | 81.2 | 28.3 | 52.6 | 80.6 | 28.2 | 52.5 |
| 65 and over | 54.5 | 19.9 | 34.3 | 52.2 | 19.0 | 33.2 | 49.6 | 18.2 | 31.8 | 47.3 | 17.3 | 30.4 |

IRELAND

| Age | 1965 ¹ | | | 1970 ² | | | 1975 ³ | | | 1980 ³ | | |
|----------------------------|-------------------|---------|-------|-------------------|---------|-------|-------------------|---------|-------|-------------------|---------|-------|
| | Males | Females | Total |
| Population (000s) | | | | | | | | | | | | |
| All ages | 1 437 | 1 425 | 2 862 | 1 480 | 1 474 | 2 954 | 1 578 | 1 574 | 3 152 | 1 698 | 1 694 | 3 392 |
| Less than 15 | 454 | 433 | 897 | 470 | 450 | 920 | 515 | 492 | 1 007 | 580 | 555 | 1 135 |
| 15-19 | 136 | 127 | 263 | 138 | 130 | 268 | 145 | 137 | 282 | 151 | 143 | 294 |
| 20-24 | 98 | 92 | 188 | 118 | 111 | 229 | 129 | 122 | 251 | 135 | 128 | 263 |
| 25-44 | 297 | 304 | 601 | 298 | 301 | 599 | 340 | 335 | 675 | 393 | 380 | 773 |
| 45-54 | 168 | 153 | 321 | 158 | 160 | 318 | 144 | 149 | 293 | 132 | 136 | 258 |
| 55-64 | 138 | 136 | 274 | 148 | 145 | 293 | 147 | 151 | 298 | 139 | 148 | 287 |
| 65 and over | 143 | 170 | 313 | 150 | 177 | 327 | 158 | 188 | 346 | 168 | 204 | 372 |
| Labour force (000s) | | | | | | | | | | | | |
| All ages | 828 | 310 | 1 138 | 842 | 333 | 1 175 | 886 | 359 | 1 245 | 932 | 377 | 1 309 |
| Less than 15 | 6 | 4 | 10 | — | — | — | — | — | — | — | — | — |
| 15-19 | 86 | 69 | 155 | 85 | 70 | 155 | 83 | 74 | 162 | 92 | 77 | 169 |
| 20-24 | 86 | 65 | 151 | 105 | 81 | 186 | 114 | 89 | 203 | 120 | 93 | 213 |
| 25-44 | 290 | 78 | 368 | 292 | 84 | 376 | 333 | 95 | 429 | 383 | 108 | 491 |
| 45-54 | 161 | 36 | 197 | 154 | 38 | 192 | 140 | 36 | 176 | 128 | 32 | 160 |
| 55-64 | 124 | 32 | 156 | 132 | 35 | 167 | 131 | 37 | 168 | 125 | 37 | 162 |
| 65 and over | 75 | 26 | 101 | 74 | 25 | 99 | 80 | 27 | 107 | 84 | 30 | 114 |
| Participation rates | | | | | | | | | | | | |
| All ages | 57.6 | 21.8 | 39.8 | 55.9 | 22.6 | 39.8 | 56.1 | 22.8 | 39.5 | 54.9 | 22.3 | 38.6 |
| Less than 15 | 1.3 | 0.9 | 1.1 | — | — | — | — | — | — | — | — | — |
| 15-19 ⁴ | 63.2 | 54.3 | 58.9 | 61.6 | 53.8 | 57.8 | 60.7 | 54.0 | 57.4 | 60.9 | 53.8 | 57.5 |
| 20-24 ⁴ | 89.6 | 70.7 | 80.3 | 89.0 | 73.0 | 81.2 | 88.4 | 73.0 | 80.9 | 88.9 | 72.7 | 81.0 |
| 25-44 | 97.6 | 25.7 | 61.2 | 98.0 | 27.9 | 62.8 | 97.9 | 28.7 | 63.6 | 97.5 | 28.4 | 63.5 |
| 45-54 | 95.8 | 22.1 | 59.5 | 97.5 | 23.8 | 68.4 | 97.2 | 24.2 | 60.1 | 97.0 | 23.5 | 59.7 |
| 55-64 | 89.9 | 23.5 | 56.9 | 89.2 | 24.1 | 57.0 | 89.1 | 24.5 | 56.4 | 89.9 | 25.0 | 56.4 |
| 65 and over ⁴ | 50.7 | 15.3 | 31.8 | 49.3 | 14.1 | 30.3 | 50.6 | 14.4 | 30.9 | 50.0 | 14.7 | 30.6 |

Source: OECD: *Demographic Trends, 1965-1980, Supplement: Country Reports*, pp. 137-141.

¹

1 April.

² 1976.

³ 1981.

⁴ According to ILO estimates, activity rates for youths 15-19, 20-24 and men 65 years and over do not show sufficient decrease 1965-1980.

ITALY

| Age | 1965 | | | 1970 | | | 1975 | | | 1980 | | |
|---------------------------|--------|---------|--------|--------|---------|--------|--------|---------|--------|-------------------|---------|--------|
| | Males | Females | Total | Males | Females | Total | Males | Females | Total | Males | Females | Total |
| Population (000s) | | | | | | | | | | | | |
| All ages | 25 619 | 26 648 | 52 267 | 26 786 | 27 767 | 54 553 | 27 983 | 28 876 | 56 859 | 29 193 | 29 970 | 59 163 |
| Less than 15 | 6 434 | 6 181 | 12 615 | 6 774 | 6 489 | 13 263 | 7 131 | 6 818 | 13 949 | 7 412 | 7 079 | 14 491 |
| 15-19 | 2 134 | 2 054 | 4 198 | 2 018 | 1 951 | 3 969 | 2 097 | 2 019 | 4 116 | 2 271 | 2 181 | 4 452 |
| 20-24 | 1 949 | 1 905 | 3 854 | 2 122 | 2 059 | 4 181 | 2 003 | 1 947 | 3 955 | 2 057 | 2 015 | 4 102 |
| 25-44 | 7 625 | 7 774 | 15 399 | 7 598 | 7 699 | 15 397 | 7 991 | 7 814 | 15 715 | 7 964 | 7 814 | 15 778 |
| 45-54 | 2 810 | 2 960 | 5 770 | 2 927 | 3 127 | 6 054 | 3 561 | 3 765 | 7 327 | 3 638 | 3 737 | 7 375 |
| 55-64 | 2 509 | 2 781 | 5 290 | 2 816 | 3 118 | 5 934 | 2 488 | 2 776 | 5 264 | 2 630 | 2 951 | 5 581 |
| 65 and over | 2 158 | 2 983 | 5 141 | 2 431 | 3 324 | 5 755 | 2 797 | 3 736 | 6 533 | 3 191 | 4 193 | 7 384 |
| Labour force (000s) | | | | | | | | | | | | |
| All ages | 15 242 | 5 885 | 21 127 | 15 206 | 5 692 | 20 898 | 15 573 | 5 749 | 21 322 | 16 127 | 5 935 | 22 032 |
| Less than 15 ¹ | 119 | 76 | 195 | 86 | 60 | 146 | 84 | 69 | 144 | 89 | 64 | 153 |
| 15-19 | 1 263 | 867 | 2 130 | 990 | 725 | 1 716 | 979 | 723 | 1 797 | 1 058 | 784 | 1 842 |
| 20-24 | 1 656 | 893 | 2 549 | 1 730 | 944 | 2 674 | 1 631 | 886 | 2 517 | 1 692 | 916 | 2 603 |
| 25-44 | 7 390 | 2 527 | 9 917 | 7 424 | 2 408 | 9 832 | 7 603 | 2 429 | 10 037 | 7 671 | 2 423 | 10 094 |
| 45-54 | 2 620 | 850 | 3 470 | 2 707 | 872 | 3 579 | 3 279 | 1 039 | 4 318 | 3 350 | 1 032 | 4 382 |
| 55-64 | 1 782 | 521 | 2 303 | 1 897 | 553 | 2 450 | 1 586 | 468 | 2 054 | 1 810 | 531 | 2 341 |
| 65 and over | 412 | 151 | 563 | 372 | 129 | 501 | 406 | 139 | 545 | 457 | 155 | 612 |
| Participation rates | | | | | | | | | | | | |
| All ages | 59.5 | 22.1 | 40.4 | 56.8 | 20.5 | 38.3 | 55.7 | 19.9 | 37.5 | 55.2 | 19.7 | 37.2 |
| Less than 15 | 1.3 | 1.2 | 1.5 | 1.3 | 0.9 | 1.1 | 1.2 | 0.9 | 1.0 | 1.2 | 0.9 | 1.1 |
| 15-19 | 59.2 | 42.0 | 50.7 | 49.1 | 37.2 | 43.2 | 46.7 | 36.1 | 41.5 | 46.6 | 35.9 | 41.4 |
| 20-24 | 85.0 | 46.9 | 66.1 | 81.5 | 45.8 | 64.0 | 81.2 | 45.5 | 63.6 | 81.1 | 45.5 | 63.6 |
| 25-44 | 96.9 | 32.5 | 64.4 | 96.4 | 31.3 | 63.9 | 96.3 | 31.1 | 63.9 | 96.3 | 31.0 | 64.0 |
| 45-54 | 93.2 | 28.7 | 60.1 | 92.5 | 27.9 | 59.1 | 92.1 | 27.6 | 58.9 | 92.1 | 27.6 | 59.4 |
| 55-64 | 71.0 | 18.7 | 43.5 | 67.4 | 17.7 | 41.3 | 63.7 | 16.9 | 39.0 | 68.8 ² | 18.0 | 41.9 |
| 65 and over | 19.1 | 5.1 | 11.0 | 15.3 | 3.9 | 8.7 | 14.5 | 3.7 | 8.3 | 14.3 | 3.7 | 8.3 |

Source: Central Statistical Office, Italy.

¹ Persons aged 14 years only.

² The increase in the participation rate for the age group 55-64 from 63.7 in 1975 to 68.8 in 1980 is due to a change in the relative size of the two constituent five-year age groups. Thus a calculation of the rates by five-year age groups shows unchanged rates from 1975 to 1980.

NETHERLANDS

| Age | 1965 ¹ | | | 1970 ¹ | | | 1975 ¹ | | | 1980 ¹ | | |
|----------------------------|-------------------|---------|----------|-------------------|---------|----------|-------------------|---------|----------|-------------------|---------|----------|
| | Males | Females | Total |
| Population (000s) | | | | | | | | | | | | |
| All ages | 6 085.3 | 6 119.5 | 12 204.8 | 6 505.0 | 6 561.7 | 13 066.7 | 7 012.6 | 7 231.8 | 14 104.4 | 7 579.7 | 7 678.1 | 15 257.8 |
| Less than 15 | 1 773.8 | 1 689.3 | 3 463.1 | 1 891.9 | 1 806.0 | 3 697.9 | 2 102.5 | 2 037.3 | 4 109.8 | 2 360.8 | 2 253.5 | 4 514.3 |
| 15-19 | 597.3 | 570.0 | 1 167.3 | 565.5 | 537.7 | 1 103.2 | 584.0 | 558.5 | 1 142.5 | 614.7 | 588.3 | 1 203.0 |
| 20-24 | 463.2 | 439.7 | 902.9 | 594.6 | 569.2 | 1 163.8 | 592.8 | 537.0 | 1 099.8 | 581.2 | 557.9 | 1 139.1 |
| 25-44 | 1 551.3 | 1 535.1 | 3 086.4 | 1 628.1 | 1 579.5 | 3 207.6 | 1 649.8 | 1 768.2 | 3 609.0 | 2 005.4 | 1 923.2 | 3 928.6 |
| 45-54 | 634.9 | 655.2 | 1 300.1 | 630.4 | 712.3 | 1 392.7 | 724.3 | 752.9 | 1 477.2 | 735.1 | 741.9 | 1 477.0 |
| 55-64 | 534.8 | 590.6 | 1 125.4 | 564.1 | 528.8 | 1 192.9 | 568.4 | 635.7 | 1 204.1 | 610.1 | 684.6 | 1 294.7 |
| 65 and over | 529.9 | 629.7 | 1 159.6 | 580.3 | 728.4 | 1 308.7 | 629.7 | 832.3 | 1 462.0 | 672.4 | 928.7 | 1 601.1 |
| Labour force (000s) | | | | | | | | | | | | |
| All ages | 3 468.6 | 1 053.4 | 4 522.0 | 3 657.4 | 1 115.7 | 4 783.1 | 3 853.5 | 1 146.1 | 4 999.5 | 4 052.0 | 1 202.9 | 5 254.9 |
| Less than 15 | — | — | — | — | — | — | — | — | — | — | — | — |
| 15-19 ² | 351.2 | 348.4 | 699.6 | 299.6 | 309.6 | 609.2 | 277.3 | 299.3 | 576.6 | 266.3 | 292.8 | 559.1 |
| 20-24 | 414.6 | 243.0 | 657.6 | 525.1 | 310.7 | 835.8 | 487.5 | 268.1 | 775.6 | 494.9 | 299.3 | 794.2 |
| 25-44 | 1 523.6 | 256.2 | 1 789.8 | 1 598.4 | 285.7 | 1 884.1 | 1 806.2 | 342.9 | 1 969.0 | 392.6 | 2 361.6 | — |
| 45-54 | 618.7 | 111.9 | 730.6 | 663.4 | 119.7 | 783.1 | 705.8 | 129.2 | 850.0 | 716.5 | 129.6 | 845.1 |
| 55-64 | 488.6 | 68.4 | 537.0 | 493.6 | 73.1 | 566.7 | 496.4 | 68.7 | 565.1 | 536.0 | 70.3 | 635.3 |
| 65 and over | 91.9 | 15.5 | 107.4 | 87.3 | 16.9 | 104.2 | 80.3 | 17.9 | 98.2 | 69.3 | 18.3 | 87.6 |
| Participation rates | | | | | | | | | | | | |
| All ages | 57.0 | 17.2 | 37.1 | 56.4 | 17.0 | 36.6 | 55.0 | 16.2 | 35.4 | 53.5— | 15.7 | 34.4 |
| Less than 15 | — | — | — | — | — | — | — | — | — | — | — | — |
| 15-19 | 58.8 | 61.1 | 59.9 | 53.0 | 57.6 | 55.2 | 47.5— | 53.6 | 50.5— | 43.3 | 49.8 | 46.5— |
| 20-24 | 89.5+ | 55.3 | 72.8 | 88.3 | 54.6 | 71.8 | 86.6 | 53.6 | 70.5+ | 85.2 | 53.6 | 69.7 |
| 25-44 | 98.2 | 17.3 | 58.0 | 98.2 | 18.1 | 58.7 | 98.1 | 19.4 | 59.5+ | 98.2 | 20.4 | 60.1 |
| 45-54 | 97.4 | 16.8 | 56.2 | 97.5+ | 16.8 | 56.2 | 97.4 | 17.2 | 56.5+ | 97.5— | 17.5— | 57.3 |
| 55-64 | 87.6 | 11.6 | 47.7 | 87.5+ | 11.6 | 47.5+ | 87.3 | 10.8 | 46.9 | 87.9 | 10.3 | 46.8 |
| 65 and over | 17.3 | 2.5— | 9.3 | 15.0 | 2.3 | 8.0 | 12.8 | 2.2 | 6.7 | 10.3 | 2.0 | 5.5— |

Source: OECD: *Demographic Trends, 1965-1980*. Supplement: *Country Reports*, pp. 189 and 192.¹ 1 January.² Persons aged 14-19 years.

NORWAY

| Age | 1965 ¹ | | | 1970 | | | 1975 | | | 1980 | | |
|----------------------------|-------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | Males | Females | Total | Males | Females | Total | Males | Females | Total | Males | Females | Total |
| Population (000s) | | | | | | | | | | | | |
| All ages | 1 866.5 | 1 868.4 | 3 734.9 | 1 933.7 | 1 930.7 | 3 864.4 | 2 045.5 | 2 029.8 | 4 075.3 | 2 148.1 | 2 121.5 | 4 269.6 |
| Less than 15 | 466.5 | 443.4 | 909.9 | 475.6 | 451.8 | 927.4 | 509.4 | 482.5 | 991.9 | 557.1 | 527.6 | 1 084.7 |
| 15-19 | 162.7 | 153.8 | 316.5 | 154.3 | 146.6 | 303.9 | 156.8 | 149.4 | 306.2 | 154.0 | 145.5 | 299.5 |
| 20-24 | 134.8 | 127.1 | 261.9 | 162.8 | 153.0 | 315.8 | 155.0 | 146.3 | 301.3 | 156.5 | 148.4 | 304.9 |
| 25-44 | 444.7 | 432.2 | 876.9 | 447.1 | 431.0 | 878.1 | 489.9 | 470.8 | 960.7 | 542.5 | 517.9 | 1 060.4 |
| 45-54 | 246.9 | 246.3 | 493.2 | 248.8 | 247.9 | 496.7 | 234.2 | 239.0 | 464.2 | 203.3 | 200.7 | 404.0 |
| 55-64 | 200.1 | 212.5 | 412.6 | 212.1 | 221.2 | 434.3 | 230.5 | 235.4 | 465.9 | 235.5 | 238.9 | 474.4 |
| 65 and over | 210.8 | 253.1 | 463.9 | 232.0 | 239.2 | 511.2 | 269.7 | 315.4 | 585.1 | 299.2 | 342.5 | 641.7 |
| Labour force (000s) | | | | | | | | | | | | |
| All ages | 1 117.2 | 349.3 | 1 466.5 | 1 146.2 | 365.6 | 1 491.8 | 1 181.4 | 390.5 | 1 571.9 | 1 197.9 | 389.0 | 1 586.9 |
| Less than 15 | — | — | — | — | — | — | — | — | — | — | — | — |
| 15-19 | 72.2 | 59.1 | 131.3 | 57.3 | 51.5 | 108.8 | 47.9 | 45.4 | 93.3 | 39.8 | 37.9 | 77.7 |
| 20-24 | 110.4 | 59.1 | 169.5 | 132.2 | 70.1 | 202.3 | 123.0 | 71.2 | 194.2 | 120.5 | 72.2 | 192.7 |
| 25-44 | 431.8 | 95.5 | 527.3 | 433.7 | 99.4 | 533.1 | 474.1 | 119.5 | 593.6 | 517.0 | 130.8 | 647.8 |
| 45-54 | 239.2 | 60.9 | 300.1 | 242.2 | 64.2 | 306.4 | 229.3 | 65.6 | 294.9 | 197.0 | 55.9 | 252.9 |
| 55-64 | 185.8 | 53.8 | 239.6 | 194.6 | 57.2 | 251.8 | 209.5 | 61.9 | 271.4 | 216.3 | 63.7 | 280.0 |
| 65 and over | 73.8 | 20.9 | 98.7 | 86.2 | 23.2 | 109.4 | 97.6 | 26.9 | 124.5 | 107.3 | 28.5 | 135.8 |
| Participation rates | | | | | | | | | | | | |
| All ages | 59.9 | 18.7 | 39.3 | 59.3 | 18.9 | 38.6 | 57.8 | 19.2 | 38.5 | 55.9 | 18.3 | 37.2 |
| Less than 15 | — | — | — | — | — | — | — | — | — | — | — | — |
| 15-19 | 44.4 | 38.4 | 41.5— | 37.1 | 35.1 | 36.2 | 30.5— | 30.4 | 30.5— | 25.8 | 26.0 | 25.9 |
| 20-24 | 81.9 | 46.5— | 64.7 | 81.2 | 45.8 | 64.1 | 79.4 | 48.7 | 64.5— | 77.0 | 48.7 | 63.2 |
| 25-44 | 97.1 | 22.1 | 60.1 | 97.0 | 23.1 | 60.7 | 96.8 | 25.4 | 61.8 | 95.3 | 25.3 | 61.1 |
| 45-54 | 96.9 | 24.7 | 60.8 | 97.3 | 25.9 | 61.7 | 97.9 | 28.5— | 63.5— | 96.9 | 27.9 | 62.6 |
| 55-64 | 92.9 | 25.3 | 58.1 | 91.3 | 25.9 | 58.0 | 90.9 | 26.3 | 58.3 | 91.8 | 26.7 | 59.0 |
| 65 and over | 36.9 | 8.3 | 21.3 | 37.2 | 8.3 | 21.4 | 36.2 | 8.5— | 21.3 | 35.9 | 8.3 | 21.2 |

Source: OECD: *Demographic Trends, 1965-1980, Supplement: Country Reports*, pp. 163 and 165.
 1 January 1966.

POLAND

| Age | 1965 | | | 1970 | | | 1975 | | | 1980 | | |
|----------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| | Males | Females | Total |
| Population | | | | | | | | | | | | |
| All ages | 15 262 500 | 16 182 498 | 31 444 998 | 16 121 149 | 16 897 734 | 33 018 883 | 17 052 862 | 17 674 301 | 34 727 163 | 18 051 536 | 18 504 973 | 36 556 509 |
| Less than 15 | 4 984 329 | 4 763 483 | 9 747 812 | 4 565 011 | 4 350 584 | 8 915 595 | 4 295 723 | 4 085 324 | 8 381 047 | 4 484 735 | 4 270 068 | 8 754 803 |
| 15-19 | 1 468 851 | 1 419 147 | 2 887 998 | 1 768 251 | 1 702 484 | 3 470 735 | 1 751 711 | 1 678 867 | 3 430 578 | 1 429 472 | 1 356 514 | 2 785 986 |
| 20-24 | 979 051 | 957 349 | 1 936 400 | 1 460 577 | 1 413 202 | 2 873 779 | 1 761 181 | 1 697 350 | 3 458 531 | 1 746 480 | 1 675 069 | 3 421 549 |
| 25-44 | 4 307 548 | 4 540 396 | 8 847 944 | 4 320 348 | 4 386 996 | 8 707 344 | 4 646 621 | 4 594 027 | 9 240 648 | 5 244 055 | 5 117 770 | 10 361 825 |
| 45-54 | 1 347 500 | 1 590 058 | 2 937 608 | 1 489 294 | 1 744 618 | 3 233 912 | 1 963 359 | 2 199 711 | 4 163 070 | 2 169 998 | 2 274 023 | 4 444 021 |
| 55-64 | 1 348 528 | 1 596 001 | 2 944 529 | 1 411 122 | 1 680 905 | 3 092 027 | 1 213 683 | 1 475 239 | 2 688 322 | 1 363 818 | 1 635 374 | 2 999 192 |
| 65 and over | 826 643 | 1 316 064 | 2 142 707 | 1 106 546 | 1 618 945 | 2 725 491 | 1 421 184 | 1 943 783 | 3 364 967 | 1 612 978 | 2 176 155 | 3 789 133 |
| Labour force | | | | | | | | | | | | |
| All ages | 8 595 545 | 6 537 684 | 15 133 229 | 9 429 864 | 7 068 738 | 16 498 602 | 10 362 037 | 7 644 998 | 18 008 035 | 11 127 224 | 8 043 233 | 19 170 447 |
| Less than 15 | 9 969 | 14 290 | 24 259 | 9 130 | 13 051 | 22 181 | 8 591 | 8 171 | 17 762 | 4 485 | 8 540 | 13 025 |
| 15-19 | 659 515 | 563 401 | 1 222 916 | 765 653 | 648 646 | 1 414 299 | 730 464 | 612 787 | 1 343 251 | 573 218 | 474 780 | 1 047 998 |
| 20-24 | 858 628 | 646 211 | 1 504 839 | 1 278 005 | 951 085 | 2 229 090 | 1 535 750 | 1 138 922 | 2 674 672 | 1 519 438 | 1 120 621 | 2 640 059 |
| 25-44 | 4 169 706 | 2 996 661 | 7 166 367 | 4 177 777 | 2 917 352 | 7 095 129 | 4 493 283 | 3 077 998 | 7 571 281 | 5 065 757 | 3 449 377 | 8 515 134 |
| 45-54 | 1 288 258 | 1 058 979 | 2 347 237 | 1 420 787 | 1 170 639 | 2 591 426 | 1 869 118 | 1 487 005 | 3 356 123 | 2 061 498 | 1 548 610 | 3 610 108 |
| 55-64 | 1 170 522 | 877 800 | 2 048 322 | 1 216 387 | 921 136 | 2 137 523 | 1 038 399 | 806 956 | 1 845 355 | 1 159 245 | 892 914 | 2 052 159 |
| 65 and over | 438 947 | 380 342 | 819 289 | 562 125 | 446 829 | 1 008 954 | 686 432 | 513 159 | 1 199 591 | 743 583 | 548 391 | 1 291 974 |
| Participation rates | | | | | | | | | | | | |
| All ages | 56.3 | 40.4 | 48.1 | 58.5 | 41.8 | 50.0 | 60.8 | 43.3 | 51.9 | 61.6 | 43.5 | 52.4 |
| Less than 15 | 0.2 | 0.3 | 0.3 | 0.2 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 | 0.2 |
| 15-19 | 44.9 | 39.7 | 42.3 | 43.3 | 38.1 | 40.7 | 41.7 | 36.5 | 39.2 | 40.1 | 35.0 | 37.6 |
| 20-24 | 87.7 | 67.5 | 77.7 | 87.5 | 67.3 | 77.6 | 87.2 | 67.1 | 77.3 | 87.0 | 66.9 | 77.2 |
| 25-44 | 96.8 | 66.0 | 81.0 | 96.7 | 65.5 | 81.5 | 96.7 | 67.0 | 81.9 | 96.6 | 67.4 | 82.2 |
| 45-54 | 95.6 | 66.6 | 79.9 | 95.4 | 67.1 | 80.1 | 95.2 | 67.6 | 80.6 | 95.0 | 68.1 | 81.2 |
| 55-64 | 86.8 | 55.0 | 69.6 | 86.2 | 54.8 | 69.1 | 85.6 | 54.7 | 68.6 | 85.0 | 54.6 | 68.4 |
| 65 and over | 53.1 | 28.9 | 38.2 | 50.8 | 27.6 | 37.0 | 48.3 | 26.4 | 35.6 | 46.1 | 25.2 | 34.1 |

PORTUGAL

| Age | 1965 ¹ | | | 1970 ² | | | 1975 | | | 1980 | | |
|------------------------------------------|-------------------|---------|---------|-------------------|---------|---------|---------|---------|----------|---------|---------|----------|
| | Males | Females | Total | Males | Females | Total | Males | Females | Total | Males | Females | Total |
| Population (000s)³ | | | | | | | | | | | | |
| All ages | 4 434.8 | 4 823.3 | 9 258.1 | 4 639.5 | 5 029.1 | 9 668.6 | 4 863.5 | 5 246.7 | 10 110.2 | 5 100.3 | 5 466.9 | 10 567.2 |
| Less than 15 | 1 361.0 | 1 302.5 | 2 663.5 | 1 430.5 | 1 365.0 | 2 795.5 | 1 519.3 | 1 448.1 | 2 967.4 | 1 587.5 | 1 509.4 | 3 096.9 |
| 15-19 | 399.3 | 405.0 | 804.3 | 397.6 | 396.4 | 794.0 | 404.6 | 399.1 | 803.7 | 445.0 | 438.5 | 883.5 |
| 20-24 | 342.8 | 367.4 | 710.2 | 376.6 | 391.5 | 768.1 | 375.4 | 383.2 | 758.6 | 382.7 | 386.0 | 768.7 |
| 25-44 | 1 187.6 | 1 308.4 | 2 496.0 | 1 198.6 | 1 332.1 | 2 530.7 | 1 240.4 | 1 366.4 | 2 606.8 | 1 280.6 | 1 388.6 | 2 669.2 |
| 45-54 | 461.6 | 511.2 | 972.8 | 480.6 | 535.6 | 1 016.2 | 517.8 | 588.8 | 1 106.6 | 527.8 | 608.6 | 1 136.4 |
| 55-64 | 377.7 | 458.4 | 836.1 | 410.6 | 481.7 | 892.3 | 408.2 | 470.5 | 878.7 | 429.8 | 494.8 | 924.6 |
| 65 and over | 504.8 | 470.4 | 775.2 | 345.0 | 526.8 | 871.8 | 397.8 | 590.6 | 988.4 | 446.9 | 641.0 | 1 087.9 |
| Labour force (000s)^{3,4} | | | | | | | | | | | | |
| All ages | 2 934.0 | 1 009.2 | 3 943.2 | 3 048.9 | 1 042.8 | 4 091.7 | 3 173.8 | 1 077.5 | 4 251.3 | 3 324.7 | 1 121.6 | 4 446.3 |
| Less than 15 ⁵ | 146.2 | 58.2 | 204.4 | 148.4 | 58.5 | 206.9 | 162.3 | 64.1 | 226.4 | 171.4 | 67.5 | 238.9 |
| 15-19 | 345.4 | 148.6 | 494.0 | 343.9 | 145.5 | 489.4 | 350.0 | 146.5 | 496.5 | 384.9 | 160.9 | 545.8 |
| 20-24 | 325.7 | 134.8 | 460.5 | 357.8 | 143.7 | 501.5 | 356.6 | 140.6 | 497.2 | 363.6 | 141.7 | 505.3 |
| 25-44 | 1 163.2 | 354.7 | 1 517.9 | 1 174.0 | 360.9 | 1 534.9 | 1 214.9 | 370.6 | 1 585.5 | 1 254.5 | 376.2 | 1 630.7 |
| 45-54 | 437.8 | 124.2 | 562.0 | 456.4 | 130.3 | 586.7 | 491.3 | 143.2 | 634.5 | 500.8 | 147.9 | 648.7 |
| 55-64 | 324.9 | 105.4 | 430.3 | 352.4 | 110.7 | 463.1 | 349.7 | 108.0 | 457.7 | 369.7 | 113.9 | 483.6 |
| 65 and over | 190.8 | 83.3 | 274.1 | 216.0 | 93.2 | 309.2 | 249.0 | 104.5 | 353.5 | 279.8 | 113.5 | 393.3 |
| Participation rates⁶ | | | | | | | | | | | | |
| All ages | 66.2 | 20.9 | 42.6 | 65.7 | 20.7 | 42.3 | 65.3 | 20.5 | 42.0 | 65.2 | 20.5 | 42.1 |
| Less than 15 | 10.7 | 4.5 | 7.7 | 10.4 | 4.3 | 7.4 | 10.7 | 4.4 | 7.6 | 10.8 | 4.5 | 7.7 |
| 15-19 | 86.5 | 36.7 | 61.4 | 86.5 | 36.7 | 61.6 | 86.5 | 36.7 | 61.8 | 86.5 | 36.7 | 81.8 |
| 20-24 | 95.0 | 36.7 | 64.8 | 95.0 | 36.7 | 65.3 | 95.0 | 36.7 | 65.5 | 95.0 | 36.7 | 65.7 |
| 25-44 | 97.9 | 27.1 | 60.8 | 97.9 | 27.1 | 60.7 | 97.9 | 27.1 | 60.8 | 98.0 | 27.1 | 61.1 |
| 45-54 | 94.8 | 24.3 | 57.8 | 93.0 | 24.3 | 57.7 | 94.9 | 24.3 | 57.3 | 94.9 | 24.3 | 57.1 |
| 55-64 | 86.0 | 23.0 | 51.5 | 85.8 | 23.0 | 51.9 | 85.7 | 23.0 | 52.1 | 86.0 | 23.0 | 52.3 |
| 65 and over | 62.4 | 17.7 | 35.4 | 62.6 | 17.7 | 35.5 | 62.6 | 17.7 | 35.8 | 62.6 | 17.7 | 36.2 |

Source: OECD: *Demographic Trends, 1965-1980, Supplement, Country Reports*, pp. 199 and 202.

¹ 1 January 1966. ² 1 January 1971. ³ Both migration. ⁴ The active population has been calculated by sex and five-year age groups, applying the respective rates of activity recorded at the 1960 census to population estimates with migration. ⁵ Persons aged 10-14 years. ⁶ According to ILO estimates, activity rates are much too constant, so that labour force projection shows only the effect of changes in population.

RUMANIA

| Age | 1965 | | | 1970 | | | 1975 | | | 1980 | | |
|----------------------------|-----------|-----------|------------|-----------|------------|------------|------------|------------|------------|------------|------------|------------|
| | Males | Females | Total | Males | Females | Total | Males | Females | Total | Males | Females | Total |
| Population | | | | | | | | | | | | |
| All ages | 9 315 510 | 9 711 857 | 19 027 357 | 9 698 141 | 10 036 904 | 19 735 045 | 10 200 749 | 10 465 741 | 20 666 490 | 10 746 755 | 10 931 722 | 21 678 477 |
| Less than 15 | 2 561 253 | 2 448 460 | 5 009 713 | 2 385 674 | 2 272 191 | 4 657 865 | 2 367 880 | 2 249 376 | 4 617 256 | 2 604 723 | 2 471 150 | 5 075 873 |
| 15-19 | 785 427 | 760 895 | 1 546 322 | 911 058 | 876 931 | 1 787 989 | 903 227 | 863 863 | 1 767 090 | 728 148 | 693 792 | 1 421 940 |
| 20-24 | 673 496 | 656 697 | 1 330 193 | 780 782 | 757 550 | 1 538 332 | 907 408 | 874 282 | 1 781 690 | 900 528 | 861 909 | 1 762 437 |
| 25-44 | 2 929 602 | 3 002 206 | 5 931 808 | 2 956 368 | 2 953 436 | 5 909 804 | 2 970 855 | 2 948 702 | 5 919 557 | 3 091 989 | 3 044 752 | 6 136 741 |
| 45-54 | 868 485 | 1 023 161 | 1 891 646 | 952 017 | 1 097 138 | 2 049 155 | 1 319 836 | 1 390 553 | 2 710 389 | 1 468 416 | 1 472 716 | 2 941 132 |
| 55-64 | 871 546 | 938 522 | 1 809 868 | 928 487 | 1 054 694 | 1 983 181 | 780 130 | 948 531 | 1 728 661 | 873 008 | 1 028 414 | 1 901 422 |
| 65 and over | 625 701 | 882 116 | 1 507 817 | 783 755 | 1 024 964 | 1 808 719 | 951 413 | 1 190 434 | 2 141 847 | 1 079 943 | 1 358 989 | 2 438 932 |
| Labour force | | | | | | | | | | | | |
| All ages | 6 158 237 | 5 150 829 | 11 309 066 | 6 558 608 | 5 440 899 | 11 999 507 | 6 950 822 | 5 725 163 | 12 675 985 | 7 177 819 | 5 846 086 | 13 023 905 |
| Less than 15 | — | — | — | — | — | — | — | — | — | — | — | — |
| 15-19 | 605 564 | 522 735 | 1 128 299 | 677 827 | 578 774 | 1 256 601 | 645 807 | 545 961 | 1 191 768 | 500 966 | 419 744 | 920 710 |
| 20-24 | 633 760 | 518 134 | 1 151 894 | 731 593 | 595 434 | 1 327 027 | 848 426 | 685 437 | 1 533 863 | 839 292 | 674 013 | 1 513 305 |
| 25-44 | 2 876 869 | 2 335 716 | 5 212 585 | 2 900 197 | 2 315 494 | 5 215 691 | 2 914 409 | 2 326 259 | 5 240 668 | 3 030 149 | 2 420 058 | 5 450 207 |
| 45-54 | 841 562 | 808 297 | 1 649 859 | 920 600 | 873 322 | 1 793 922 | 1 273 642 | 1 115 224 | 2 388 866 | 1 414 085 | 1 189 955 | 2 604 040 |
| 55-64 | 784 391 | 604 279 | 1 388 670 | 829 139 | 677 114 | 1 506 253 | 691 975 | 607 060 | 1 299 035 | 769 120 | 657 157 | 1 426 277 |
| 65 and over | 416 091 | 361 658 | 777 759 | 499 252 | 400 761 | 900 013 | 576 563 | 445 222 | 1 021 785 | 624 207 | 485 159 | 1 109 366 |
| Participation rates | | | | | | | | | | | | |
| All ages | 66.1 | 53.0 | 59.4 | 67.6 | 54.2 | 60.8 | 68.1 | 54.7 | 61.3 | 66.8 | 53.5 | 60.1 |
| Less than 14 | — | — | — | — | — | — | — | — | — | — | — | — |
| 14-19 | 77.1 | 68.7 | 73.0 | 74.4 | 66.0 | 70.3 | 71.5 | 63.2 | 67.4 | 60.8 | 60.5 | 64.8 |
| 20-24 | 94.1 | 78.9 | 86.6 | 93.7 | 78.6 | 86.3 | 93.5 | 78.4 | 86.1 | 93.2 | 78.2 | 85.9 |
| 25-44 | 98.2 | 77.8 | 87.9 | 92.1 | 78.4 | 88.3 | 98.1 | 78.9 | 88.5 | 98.0 | 79.5 | 88.8 |
| 45-54 | 96.9 | 79.0 | 87.2 | 96.7 | 79.6 | 87.5 | 96.5 | 80.2 | 88.1 | 96.3 | 80.8 | 88.5 |
| 55-64 | 90.0 | 64.4 | 76.7 | 89.3 | 64.2 | 76.0 | 88.7 | 64.0 | 75.1 | 88.1 | 63.9 | 75.0 |
| 65 and over | 66.5 | 41.0 | 51.6 | 63.7 | 39.1 | 49.8 | 60.6 | 37.4 | 47.7 | 57.8 | 35.7 | 45.5 |

SPAIN

| Age | 1965 | | | 1970 | | | 1975 | | | 1980 | | |
|----------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| | Males | Females | Total |
| Population | | | | | | | | | | | | |
| All ages | 15 357 150 | 16 217 624 | 31 574 794 | 16 021 147 | 16 815 339 | 32 836 486 | 16 786 780 | 17 514 150 | 34 300 939 | 17 412 292 | 18 079 011 | 35 491 303 |
| Less than 15 | 4 412 372 | 4 183 285 | 8 600 657 | 4 535 205 | 4 340 233 | 8 875 438 | 4 603 003 | 4 408 668 | 9 011 671 | 4 691 665 | 4 493 421 | 9 185 086 |
| 15-19 | 1 289 065 | 1 281 899 | 2 570 964 | 1 371 017 | 1 281 643 | 2 652 660 | 1 477 985 | 1 425 308 | 2 903 293 | 1 486 304 | 1 426 117 | 2 912 421 |
| 20-24 | 1 160 176 | 1 193 776 | 2 353 952 | 1 279 025 | 1 267 905 | 2 546 930 | 1 363 376 | 1 264 656 | 2 628 032 | 1 457 805 | 1 410 039 | 2 867 844 |
| 25-44 | 4 450 689 | 4 614 634 | 9 065 323 | 4 505 219 | 4 633 042 | 9 138 761 | 4 599 232 | 4 700 850 | 9 309 082 | 4 746 750 | 4 699 375 | 9 446 125 |
| 45-54 | 1 602 016 | 1 835 013 | 3 438 029 | 1 751 596 | 1 984 892 | 3 736 488 | 2 049 891 | 2 196 392 | 4 246 283 | 2 111 500 | 2 253 224 | 4 364 524 |
| 55-64 | 1 328 548 | 1 541 891 | 2 870 439 | 1 368 731 | 1 633 874 | 3 002 605 | 1 372 463 | 1 683 125 | 3 055 588 | 1 542 314 | 1 859 656 | 3 392 970 |
| 65 and over | 1 114 304 | 1 561 126 | 2 675 430 | 1 209 854 | 1 673 750 | 2 883 604 | 1 320 830 | 1 835 151 | 3 155 981 | 1 376 154 | 1 946 179 | 3 322 333 |
| Labour force | | | | | | | | | | | | |
| All ages | 9 270 210 | 2 201 742 | 11 471 952 | 9 593 929 | 2 298 826 | 11 892 755 | 10 040 653 | 2 426 689 | 12 457 342 | 10 383 695 | 2 544 271 | 12 927 965 |
| Less than 15 | 127 959 | 50 259 | 178 218 | 117 915 | 47 743 | 165 658 | 105 869 | 39 678 | 145 547 | 89 142 | 35 947 | 125 089 |
| 15-19 | 917 814 | 339 703 | 1 257 517 | 935 034 | 330 664 | 1 265 698 | 966 602 | 359 178 | 1 325 780 | 930 426 | 350 825 | 1 281 251 |
| 20-24 | 1 040 678 | 345 001 | 1 385 679 | 1 137 053 | 375 300 | 1 512 353 | 1 201 134 | 383 191 | 1 584 325 | 1 272 664 | 437 112 | 1 709 776 |
| 25-44 | 4 330 520 | 761 415 | 5 091 935 | 4 393 076 | 787 617 | 5 180 693 | 4 488 850 | 827 350 | 5 316 200 | 4 637 575 | 855 286 | 5 492 861 |
| 45-54 | 1 545 945 | 321 302 | 1 867 247 | 1 686 787 | 357 281 | 2 044 068 | 1 969 945 | 401 940 | 2 371 885 | 2 022 625 | 423 606 | 2 446 231 |
| 55-64 | 1 203 664 | 248 244 | 1 451 908 | 1 223 646 | 266 321 | 1 489 967 | 1 210 512 | 277 716 | 1 488 228 | 1 341 813 | 307 209 | 1 649 022 |
| 65 and over | 103 630 | 135 818 | 239 448 | 100 418 | 133 900 | 234 318 | 97 741 | 137 636 | 235 377 | 89 450 | 134 286 | 223 736 |
| Participation rates | | | | | | | | | | | | |
| All ages | 60.4 | 13.6 | 36.3 | 59.9 | 15.7 | 36.2 | 59.8 | 13.9 | 36.3 | 59.6 | 14.1 | 36.4 |
| Less than 15 | 2.9 | 1.2 | 2.1 | 2.6 | 1.1 | 1.9 | 2.3 | 0.9 | 1.6 | 1.9 | 0.8 | 1.4 |
| 15-19 | 71.2 | 25.5 | 48.9 | 68.2 | 25.8 | 47.7 | 65.4 | 25.2 | 45.7 | 62.6 | 24.6 | 44.0 |
| 20-24 | 89.7 | 23.9 | 58.9 | 88.9 | 29.6 | 59.4 | 88.1 | 30.3 | 60.3 | 87.3 | 31.0 | 59.6 |
| 25-44 | 97.3 | 16.5 | 56.2 | 97.5 | 17.0 | 56.7 | 97.6 | 17.6 | 57.2 | 97.7 | 18.2 | 58.1 |
| 45-54 | 96.5 | 17.5 | 54.3 | 96.3 | 18.0 | 54.7 | 96.1 | 18.3 | 55.9 | 95.8 | 18.8 | 56.0 |
| 55-64 | 90.6 | 15.1 | 50.6 | 89.4 | 16.3 | 49.6 | 88.2 | 16.5 | 48.7 | 87.0 | 16.6 | 48.6 |
| 65 and over | 9.3 | 3.7 | 8.9 | 8.3 | 8.0 | 8.1 | 7.4 | 7.5 | 7.5 | 6.5 | 6.9 | 6.7 |

Source: Population projections: OECD: *Demographic Trends, 1965-1980, Supplement: Country Reports*, pp. 57-88.

The projections of the labour force are ILO provisional estimates based on the reported sex, age specific participation rates observed in the population census of 1960 for Spain, and linked to the sex/age specific trends in the ILO projections for southern Europe.

SWEDEN

| Age | 1965 ¹ | | | 1970 | | | 1975 | | | 1980 | | |
|--------------------------|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | Males | Females | Total | Males | Females | Total | Males | Females | Total | Males | Females | Total |
| Population | | | | | | | | | | | | |
| All ages | 3 853 687 | 3 865 188 | 7 723 875 | 3 965 722 | 3 984 020 | 7 949 742 | 4 104 338 | 4 126 932 | 8 231 270 | 4 236 680 | 4 263 400 | 8 500 080 |
| Less than 15 | 829 573 | 784 958 | 1 614 531 | 870 294 | 824 382 | 1 694 676 | 945 690 | 897 422 | 1 843 112 | 1 017 151 | 964 605 | 1 981 756 |
| 15-19 | 313 186 | 299 326 | 612 512 | 277 798 | 262 850 | 540 648 | 269 794 | 254 871 | 524 665 | 274 303 | 261 027 | 535 330 |
| 20-24 | 308 297 | 295 621 | 603 918 | 321 290 | 308 517 | 629 807 | 276 849 | 262 469 | 539 318 | 269 014 | 254 569 | 523 583 |
| 25-44 | 965 369 | 944 984 | 1 910 353 | 985 589 | 959 873 | 1 945 462 | 1 062 744 | 1 029 102 | 2 091 846 | 1 114 068 | 1 071 101 | 2 185 169 |
| 45-54 | 529 683 | 523 920 | 1 053 603 | 527 510 | 522 242 | 1 049 752 | 595 666 | 502 862 | 1 008 528 | 449 981 | 447 373 | 897 354 |
| 55-64 | 462 087 | 479 788 | 941 875 | 488 749 | 499 369 | 988 118 | 488 363 | 493 202 | 981 565 | 495 388 | 501 347 | 996 755 |
| 65 and over | 450 492 | 536 591 | 987 083 | 494 492 | 606 787 | 1 101 279 | 555 232 | 687 004 | 1 242 236 | 616 775 | 763 378 | 1 380 153 |
| Labour force (000s) | | | | | | | | | | | | |
| All ages | 2 282 | 1 382 | 3 664 | 2 295 | 1 423 | 3 718 | 2 264 | 1 374 | 3 658 | 2 233 | 1 343 | 3 576 |
| Less than 15 | — | — | — | — | — | — | — | — | — | — | — | — |
| 15-19 | 158 | 149 | 307 | 111 | 102 | 213 | 51 | 48 | 99 | 36 | 34 | 70 |
| 20-24 | 193 | 182 | 375 | 202 | 189 | 391 | 166 | 144 | 310 | 148 | 127 | 275 |
| 25-44 | 927 | 526 | 1 453 | 951 | 554 | 1 505 | 1 027 | 609 | 1 636 | 1 078 | 636 | 1 714 |
| 45-54 | 508 | 304 | 812 | 504 | 314 | 818 | 483 | 304 | 787 | 429 | 270 | 699 |
| 55-64 | 409 | 192 | 601 | 434 | 236 | 670 | 433 | 239 | 672 | 440 | 246 | 686 |
| 65 and over ² | 86 | 29 | 115 | 93 | 28 | 121 | 104 | 30 | 134 | 102 | 30 | 132 |
| Participation rates | | | | | | | | | | | | |
| All ages | 59.1 | 35.8 | 47.4 | 57.9 | 35.7 | 46.8 | 55.2 | 33.3 | 44.2 | 52.7 | 31.5 | 42.1 |
| Less than 15 | — | — | — | — | — | — | — | — | — | — | — | — |
| 15-19 | 50.4 | 49.8 | 50.1 | 40.0 | 38.8 | 39.4 | 18.9 | 18.8 | 18.9 | 13.1 | 13.0 | 13.1 |
| 20-24 | 62.6 | 61.6 | 62.1 | 62.9 | 61.3 | 62.1 | 60.0 | 54.9 | 57.5 | 55.0 | 49.9 | 52.5 |
| 25-44 | 96.0 | 55.7 | 76.1 | 96.5 | 57.7 | 77.4 | 96.6 | 59.2 | 78.2 | 96.8 | 59.4 | 78.4 |
| 45-54 | 95.9 | 58.0 | 77.1 | 95.5 | 60.1 | 77.9 | 95.5 | 60.5 | 78.0 | 95.3 | 60.4 | 77.9 |
| 55-64 | 88.5 | 40.0 | 63.8 | 88.8 | 47.3 | 67.8 | 88.7 | 48.5 | 68.5 | 88.8 | 49.1 | 68.8 |
| 65 and over | 19.1 | 5.4 | 11.7 | 18.8 | 4.6 | 11.0 | 18.7 | 4.4 | 10.8 | 16.5 | 3.9 | 9.6 |

Source: OECD: *Demographic Trends, 1965-1980, Supplement: Country Reports*, pp. 258-259 and 267.¹ 1 January 1966.² Persons aged 65-69 years.

SWITZERLAND

| Age | 1965 | | | 1970 | | | 1975 | | | 1980 | | |
|-----------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | Males | Females | Total |
| Population¹ | | | | | | | | | | | | |
| All ages | 2 492 300 | 2 692 100 | 5 184 400 | 2 619 900 | 2 816 400 | 5 436 300 | 2 772 900 | 2 965 200 | 5 738 100 | 2 956 200 | 3 141 500 | 6 098 000 |
| Less than 15 | 636 200 | 610 600 | 1 246 200 | 663 200 | 637 200 | 1 300 400 | 700 600 | 675 700 | 1 376 300 | 749 400 | 722 400 | 1 471 800 |
| 15-19 | 213 300 | 204 700 | 418 000 | 205 800 | 198 200 | 404 000 | 218 300 | 209 100 | 427 400 | 227 800 | 221 200 | 449 000 |
| 20-24 | 183 800 | 181 100 | 364 900 | 213 300 | 206 000 | 419 300 | 206 600 | 200 400 | 407 000 | 220 100 | 212 600 | 432 700 |
| 25-44 | 621 100 | 678 000 | 1 299 100 | 646 500 | 689 000 | 1 335 500 | 712 100 | 730 400 | 1 442 500 | 777 600 | 773 800 | 1 551 400 |
| 45-54 | 306 900 | 327 400 | 634 300 | 310 100 | 331 500 | 641 600 | 324 100 | 356 700 | 680 800 | 326 600 | 361 100 | 687 700 |
| 55-64 | 281 600 | 330 200 | 611 800 | 297 600 | 340 700 | 638 300 | 290 300 | 325 500 | 615 800 | 300 800 | 337 300 | 638 100 |
| 65 and over | 249 400 | 359 700 | 609 100 | 283 400 | 413 800 | 697 200 | 320 900 | 467 400 | 788 300 | 353 900 | 513 400 | 867 300 |
| Labour force^{1,2} | | | | | | | | | | | | |
| All ages | 1 593 100 | 659 500 | 2 252 600 | 1 675 500 | 688 300 | 2 363 800 | 1 762 600 | 712 300 | 2 474 900 | 1 873 700 | 749 100 | 2 622 800 |
| Less than 15 | — | — | — | — | — | — | — | — | — | — | — | — |
| 15-19 ³ | 147 700 | 129 800 | 276 500 | 146 800 | 128 000 | 274 800 | 154 200 | 134 600 | 288 800 | 163 400 | 143 700 | 307 100 |
| 20-24 | 164 900 | 115 200 | 280 100 | 191 400 | 131 000 | 322 400 | 185 400 | 127 500 | 312 900 | 197 500 | 135 200 | 332 700 |
| 25-44 | 612 300 | 192 500 | 804 800 | 636 700 | 197 600 | 834 300 | 701 100 | 210 600 | 911 700 | 766 100 | 221 600 | 987 700 |
| 45-54 | 301 700 | 96 100 | 397 800 | 305 000 | 96 800 | 401 800 | 318 600 | 104 300 | 422 900 | 321 100 | 105 600 | 426 700 |
| 55-64 | 261 400 | 89 100 | 350 500 | 275 900 | 91 700 | 367 600 | 268 600 | 87 200 | 355 800 | 279 300 | 91 200 | 370 500 |
| 65 and over | 105 100 | 37 800 | 142 900 | 119 700 | 43 200 | 162 900 | 134 700 | 48 100 | 182 800 | 146 300 | 51 800 | 198 100 |
| Participation rates | | | | | | | | | | | | |
| All ages | 63.9 | 24.5 | 43.4 | 64.0 | 24.4 | 43.5 | 63.6 | 24.0 | 43.1 | 63.4 | 23.8 | 43.0 |
| Less than 15 | — | — | — | — | — | — | — | — | — | — | — | — |
| 15-19 | 69.2 | 62.9 | 66.1 | 71.3 | 64.6 | 68.0 | 70.6 | 64.4 | 67.6 | 71.7 | 65.0 | 68.4 |
| 20-24 | 89.7 | 63.6 | 76.8 | 89.7 | 63.6 | 76.9 | 89.7 | 63.6 | 76.9 | 89.7 | 63.6 | 76.9 |
| 25-44 | 98.6 | 28.4 | 62.0 | 98.5— | 28.7 | 62.5— | 98.5— | 28.8 | 63.2 | 98.5+ | 28.6 | 63.7 |
| 45-54 | 98.3 | 29.4 | 62.7 | 98.4 | 29.2 | 62.6 | 98.3 | 29.2 | 62.1 | 98.3 | 29.2 | 62.0 |
| 55-64 | 92.8 | 27.0 | 57.3 | 92.7 | 26.9 | 57.6 | 92.5+ | 26.8 | 57.8 | 92.9 | 27.0 | 58.1 |
| 65 and over | 42.1 | 10.5+ | 23.5— | 42.2 | 10.4 | 23.4 | 42.0 | 10.3 | 23.2 | 41.3 | 10.1 | 22.8 |

Source: OECD: *Demographic Trends, 1965-1980, Supplement: Country Reports*, tables A2 and C, pp. 279, 282.

¹ With migration.

² The active population was computed (by five-year age groups) according to the ratio of economically active persons to the entire population at the time of the 1960 census on the assumption that this ratio would remain constant throughout the period considered. According to ILO estimates, participation rates for age groups 15, 19, 20-24, and 45 and over should decline.

³ Cf. OECD, op. cit. Table C, p. 282. These figures have been obtained from the addition of the data concerning the following age groups. Active population under 18 years plus active population aged 18 years plus active population aged 19 years.

TURKEY

| Age | 1965 | | | 1970 | | | 1975 | | | 1980 | | |
|----------------------------|--------|---------|--------|--------|---------|--------|--------|---------|--------|--------|---------|--------|
| | Males | Females | Total |
| Population (000s) | | | | | | | | | | | | |
| All ages | 16 115 | 15 560 | 31 675 | 18 243 | 17 623 | 35 866 | 20 708 | 20 024 | 40 732 | 23 639 | 22 885 | 46 524 |
| Less than 15 | 6 869 | 6 627 | 13 496 | 7 447 | 7 228 | 14 675 | 8 164 | 7 96 | 16 070 | 9 271 | 8 957 | 18 228 |
| 15-19 | 1 514 | 1 507 | 3 121 | 2 024 | 1 922 | 3 945 | 2 272 | 2 216 | 4 482 | 2 463 | 2 339 | 4 742 |
| 20-24 | 1 283 | 1 110 | 2 393 | 1 589 | 1 487 | 3 076 | 1 998 | 1 911 | 3 899 | 2 248 | 2 197 | 4 445 |
| 25-44 | 3 911 | 3 720 | 7 631 | 4 387 | 4 029 | 8 416 | 5 001 | 4 54 | 9 535 | 5 847 | 5 359 | 11 206 |
| 45-54 | 1 059 | 1 018 | 2 077 | 1 148 | 1 160 | 2 308 | 1 519 | 1 572 | 3 091 | 1 260 | 1 851 | 3 711 |
| 55-64 | 860 | 855 | 1 715 | 969 | 948 | 1 917 | 915 | 916 | 1 831 | 1 009 | 1 059 | 2 068 |
| 65 and over | 519 | 723 | 1 242 | 679 | 849 | 1 528 | 839 | 979 | 1 818 | 1 001 | 1 123 | 2 124 |
| Labour force (000s) | | | | | | | | | | | | |
| All ages | 8 485 | 5 072 | 13 557 | 9 784 | 5 847 | 15 631 | 11 285 | 6 801 | 18 086 | 12 380 | 7 702 | 20 582 |
| Less than 15 | — | — | — | — | — | — | — | — | — | — | — | — |
| 15-19 | 1 194 | 925 | 2 119 | 1 455 | 1 153 | 2 608 | 1 590 | 1 307 | 2 897 | 1 634 | 1 357 | 3 991 |
| 20-24 | 1 175 | 679 | 1 854 | 1 448 | 929 | 2 377 | 1 812 | 1 201 | 3 013 | 2 028 | 1 402 | 3 430 |
| 25-44 | 3 841 | 2 247 | 6 088 | 4 308 | 2 434 | 6 742 | 4 911 | 2 784 | 7 695 | 5 742 | 3 237 | 8 979 |
| 45-54 | 1 037 | 620 | 1 657 | 1 123 | 689 | 1 812 | 1 486 | 901 | 2 393 | 1 817 | 1 040 | 2 857 |
| 55-64 | 813 | 503 | 1 316 | 916 | 536 | 1 452 | 853 | 491 | 1 349 | 935 | 550 | 1 485 |
| 65 and over | 425 | 98 | 523 | 534 | 106 | 640 | 633 | 111 | 745 | 724 | 116 | 840 |
| Participation rates | | | | | | | | | | | | |
| All ages | 52.7 | 32.6 | 42.8 | 53.6 | 33.2 | 43.6 | 54.5 | 34.0 | 44.4 | 54.5 | 33.7 | 44.2 |
| Less than 15 | — | — | — | — | — | — | — | — | — | — | — | — |
| 15-19 | 74.0 | 61.4 | 67.9 | 71.9 | 60.0 | 66.1 | 70.0 | 59.0 | 64.5 | 68.0 | 58.0 | 63.1 |
| 20-24 | 91.6 | 61.2 | 77.5 | 91.1 | 62.5 | 77.3 | 90.7 | 63.2 | 77.3 | 90.2 | 63.8 | 77.2 |
| 25-44 | 98.2 | 60.4 | 79.8 | 98.2 | 60.4 | 80.1 | 98.2 | 61.4 | 80.7 | 98.2 | 60.4 | 80.1 |
| 45-54 | 97.9 | 60.9 | 79.8 | 97.8 | 59.4 | 78.5 | 97.8 | 57.7 | 77.4 | 97.7 | 56.2 | 77.0 |
| 55-64 | 94.5 | 58.8 | 76.7 | 94.5 | 56.5 | 75.7 | 93.2 | 54.2 | 73.7 | 92.7 | 51.9 | 71.8 |
| 65 and over | 81.9 | 13.5 | 42.1 | 78.7 | 12.5 | 41.9 | 75.4 | 11.4 | 41.0 | 72.3 | 10.3 | 39.5 |

Source: ORHAN TÜRKAY: *Türkiye-de nüfus artışı ve iktisadi gelişme*, Ankara, 1962, pp. 78, 79 and 81, tables 33 and 35. The projections of the labour force are ILO provisional estimates based mainly on the sex/age specific participation rates observed for Turkey in 1965, and the sex/age specific trends in the ILO projections for the south-west Asian region.

UNITED KINGDOM

| Age | 1951 | | | 1970 | | | 1975 | | | 1980 ² | | |
|----------------------------|-------|---------|-------|-------|---------|-------|-------|---------|-------|-------------------|---------|-------|
| | Males | Females | Total | Males | Females | Total | Males | Females | Total | Males | Females | Total |
| Population (000s) | | | | | | | | | | | | |
| All ages | 26790 | 28175 | 54965 | 27656 | 28950 | 56605 | 28879 | 30028 | 58907 | 30117 | 31106 | 61223 |
| Less than 15 | 6598 | 6276 | 12874 | 7148 | 6787 | 13935 | 7849 | 7445 | 15294 | 8303 | 7869 | 16172 |
| 15-19 | 2199 | 2089 | 4288 | 1956 | 1863 | 3819 | 2114 | 2006 | 4120 | 2426 | 2304 | 4730 |
| 20-24 | 1944 | 1878 | 3822 | 2223 | 2121 | 4344 | 1966 | 1880 | 3846 | 2115 | 2014 | 4129 |
| 25-44 | 7604 | 6793 | 13397 | 7020 | 6799 | 13819 | 7469 | 7217 | 14686 | 7698 | 7465 | 15163 |
| 45-54 | 3427 | 3562 | 6989 | 3425 | 3494 | 6919 | 3474 | 3473 | 6947 | 3285 | 3207 | 6492 |
| 55-64 | 3087 | 3446 | 6533 | 3131 | 3499 | 6630 | 2976 | 3306 | 6282 | 3042 | 3286 | 6328 |
| 65 and over | 2531 | 4131 | 6662 | 2753 | 4387 | 7140 | 3031 | 4701 | 7732 | 3248 | 4961 | 8209 |
| Labour force (000s) | | | | | | | | | | | | |
| All ages | 17099 | 9046 | 26145 | 17157 | 9052 | 26209 | 17105 | 8993 | 26098 | 17473 | 9459 | 26932 |
| Less than 15 | — | — | — | — | — | — | — | — | — | — | — | — |
| 15-19 ³ | 1588 | 1511 | 3099 | 1312 | 1272 | 2584 | 1188 | 1125 | 2313 | 1308 | 1263 | 2571 |
| 20-24 | 1834 | 176 | 3010 | 2091 | 1247 | 3338 | 1831 | 1053 | 2884 | 1977 | 1138 | 3115 |
| 25-44 | 6851 | 3049 | 9900 | 6865 | 3078 | 9943 | 7303 | 3289 | 10592 | 7535 | 3485 | 11020 |
| 45-54 | 3356 | 1860 | 5216 | 3354 | 1911 | 5265 | 3402 | 1995 | 5397 | 3237 | 1940 | 5177 |
| 55-64 | 2873 | 1203 | 4076 | 2913 | 1274 | 4187 | 2765 | 1242 | 4007 | 2832 | 1321 | 4153 |
| 65 and over | 597 | 247 | 844 | 62 | 270 | 892 | 615 | 289 | 905 | 584 | 312 | 896 |
| Participation rates | | | | | | | | | | | | |
| All ages | 63.8 | 32.1 | 47.6 | 62.0 | 31.3 | 46.3 | 59.2 | 29.9 | 44.3 | 58.0 | 30.4 | 44.0 |
| Less th. 15 | — | — | — | — | — | — | — | — | — | — | — | — |
| 15-19 | 72.2 | 72.3 | 72.3 | 67.1 | 68.3 | 67.7 | 56.2 | 56.1 | 56.1 | 53.9 | 54.8 | 54.4 |
| 20-24 | 94.3 | 62.6 | 78.8 | 94.1 | 58.8 | 76.8 | 93.1 | 56.0 | 75.0 | 93.5 | 56.5 | 75.4 |
| 25-44 | 97.8 | 44.9 | 71.8 | 97.8 | 45.3 | 72.0 | 97.8 | 45.6 | 72.1 | 97.9 | 46.7 | 72.7 |
| 45-54 | 97.9 | 52.2 | 74.6 | 97.9 | 54.7 | 76.1 | 97.9 | 57.4 | 73.7 | 98.5 | 60.5 | 79.7 |
| 55-64 | 93.1 | 34.9 | 62.4 | 93.0 | 36.4 | 63.2 | 92.9 | 37.6 | 63.8 | 93.1 | 40.2 | 65.6 |
| 65 and over | 23.6 | 6.0 | 12.7 | 22.6 | 6.2 | 12.5 | 20.3 | 6.1 | 11.7 | 18.0 | 6.3 | 10.9 |

Source: *Monthly Digest of Statistics*, No. 244, Apr. 1966; *Ministry of Labour Gazette*, Nov. 1966.

¹ 1966, at mid-year.

² For population 1980, at mid-year. For labour force 1980, ILO estimates based on 1975 and 1951 interpolations.

³ 1975 and 1980, 16-19 years.

UNION OF SOVIET SOCIALIST REPUBLICS

| Age | 1956 | | | 1973 | | | 1975 | | | 1980 | | |
|----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | Males | Females | Total |
| Population (000s) | | | | | | | | | | | | |
| All ages | 196 423 | 124 577 | 231 000 | 114 605 | 379 596 | 245 700 | 723 463 | 157 312 | 230 800 | 133 244 | 144 556 | 277 800 |
| Less than 15 | 36 413 | 35 019 | 71 430 | 36 365 | 54 523 | 71 100 | 35 623 | 54 355 | 49 778 | 36 935 | 35 365 | 72 301 |
| 15-19 | 9 177 | 8 984 | 18 161 | 11 496 | 11 113 | 22 614 | 12 623 | 12 138 | 24 761 | 12 071 | 11 599 | 23 670 |
| 20-24 | 6 902 | 6 793 | 13 695 | 9 134 | 8 931 | 18 067 | 11 456 | 11 929 | 22 545 | 12 592 | 12 114 | 24 704 |
| 25-44 | 33 519 | 37 424 | 70 933 | 35 872 | 56 121 | 71 900 | 34 573 | 34 635 | 69 208 | 37 325 | 36 820 | 74 165 |
| 45-54 | 8 253 | 13 450 | 21 703 | 8 758 | 13 634 | 22 382 | 8 466 | 17 668 | 31 734 | 17 190 | 18 464 | 35 654 |
| 55-64 | 6 933 | 12 139 | 19 072 | 7 979 | 13 258 | 21 237 | 7 463 | 12 510 | 19 770 | 8 027 | 12 765 | 20 792 |
| 65 and over | 5 223 | 32 778 | 36 005 | 4 279 | 13 019 | 19 292 | 7 687 | 15 117 | 22 804 | 9 105 | 17 408 | 26 514 |
| Labour force (000s) | | | | | | | | | | | | |
| All ages | 58 484 | 73 458 | 131 942 | 64 133 | 69 511 | 124 644 | 71 931 | 63 215 | 134 246 | 77 645 | 65 139 | 142 284 |
| Less than 15 | 655 | 630 | 1 285 | 544 | 522 | 1 066 | 427 | 342 | 769 | 369 | 177 | 546 |
| 15-19 | 5 782 | 5 432 | 11 214 | 6 783 | 6 537 | 13 320 | 7 195 | 6 907 | 14 162 | 6 639 | 6 379 | 13 018 |
| 20-24 | 6 143 | 5 414 | 11 557 | 8 033 | 4 977 | 15 015 | 10 024 | 8 454 | 18 515 | 10 953 | 9 086 | 20 039 |
| 25-44 | 37 561 | 38 936 | 76 477 | 32 426 | 27 635 | 60 559 | 32 741 | 26 253 | 58 994 | 35 459 | 27 630 | 63 069 |
| 45-54 | 7 469 | 9 469 | 16 938 | 7 970 | 9 346 | 17 316 | 12 870 | 11 862 | 24 672 | 15 815 | 12 002 | 27 817 |
| 55-64 | 3 158 | 6 327 | 11 385 | 5 895 | 6 762 | 12 653 | 5 483 | 6 318 | 11 801 | 5 860 | 6 383 | 12 243 |
| 65 and over | 1 736 | 2 350 | 4 086 | 1 976 | 2 734 | 4 710 | 2 291 | 3 059 | 5 390 | 2 550 | 3 482 | 6 032 |
| Participation rates | | | | | | | | | | | | |
| All ages | 55.0 | 46.9 | 50.5 | 55.9 | 46.2 | 50.7 | 57.5 | 46.0 | 55.1 | 58.3 | 45.1 | 51.4 |
| Less than 15 | 1.9 | 1.8 | 1.8 | 1.5 | 1.5 | 1.5 | 1.2 | 1.0 | 1.1 | 1.0 | 0.5 | 0.8 |
| 15-19 | 43.0 | 60.6 | 61.8 | 59.0 | 58.8 | 58.9 | 57.0 | 56.9 | 57.0 | 55.0 | 55.0 | 55.0 |
| 20-24 | 59.0 | 79.7 | 84.4 | 88.0 | 78.1 | 83.1 | 87.5 | 76.6 | 82.1 | 87.0 | 75.0 | 81.1 |
| 25-44 | 94.1 | 77.3 | 85.2 | 94.4 | 76.5 | 85.3 | 94.7 | 75.8 | 85.2 | 95.0 | 75.0 | 85.1 |
| 45-54 | 90.5 | 70.4 | 78.0 | 91.0 | 68.6 | 77.4 | 91.5 | 66.8 | 77.7 | 92.0 | 65.0 | 78.0 |
| 55-64 | 74.4 | 51.3 | 59.7 | 73.9 | 51.0 | 59.6 | 73.5 | 50.5 | 59.1 | 73.0 | 50.0 | 58.9 |
| 65 and over | 33.2 | 21.8 | 25.5 | 31.5 | 21.0 | 24.4 | 29.8 | 20.5 | 23.6 | 28.0 | 20.0 | 22.8 |

YUGOSLAVIA

| Age | 1965 | | | 1970 | | | 1975 | | | 1981 (000s) | | |
|----------------------------|-----------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|---------|----------|
| | Males | Females | Total | Males | Females | Total | Males | Females | Total | Males | Females | Total |
| Population | | | | | | | | | | | | |
| All ages | 9 630 756 | 10 076 934 | 19 707 690 | 10 297 496 | 10 605 352 | 20 902 848 | 10 861 401 | 11 081 084 | 21 942 785 | 11 428 | 11 570 | 23 008 |
| Less than 15 | 2 984 181 | 2 841 542 | 5 825 523 | 2 972 369 | 2 813 770 | 5 786 139 | 3 016 136 | 2 890 241 | 5 906 377 | 3 107 | 2 915 | 6 022 |
| 15-19 | 933 414 | 899 712 | 1 833 126 | 1 019 431 | 972 453 | 1 991 884 | 955 486 | 920 731 | 1 876 417 | 967 | 910 | 1 877 |
| 20-24 | 687 426 | 682 231 | 1 369 657 | 927 538 | 894 253 | 1 821 791 | 1 012 891 | 956 427 | 1 979 418 | 949 | 915 | 1 844 |
| 25-44 | 2 924 680 | 3 052 427 | 5 977 107 | 3 005 989 | 3 017 881 | 6 023 870 | 3 144 061 | 3 100 249 | 6 244 310 | 3 330 | 3 265 | 6 576 |
| 45-54 | 743 963 | 882 041 | 1 626 004 | 889 764 | 1 079 284 | 1 969 048 | 1 269 272 | 1 415 334 | 2 684 606 | 1 475 | 1 512 | 2 987 |
| 55-64 | 830 026 | 914 637 | 1 744 663 | 785 557 | 905 991 | 1 692 548 | 650 080 | 801 909 | 1 451 959 | 726 | 987 | 1 773 |
| 65 and over | 577 056 | 804 544 | 1 381 610 | 695 848 | 921 720 | 1 617 568 | 813 375 | 1 096 293 | 1 859 668 | 824 | 1 085 | 1 959 |
| Labour force (000s) | | | | | | | | | | | | |
| All ages | 5 787.8 | 3 202.4 | 8 990.2 | 6 242.7 | 3 470.5 | 9 713.2 | 6 657.9 | 3 677.9 | 10 335.8 | 7 028.7 | 3 827.2 | 10 855.5 |
| Less than 15 | 62.7 | 93.8 | 156.5 | 56.5 | 81.6 | 138.1 | 48.8 | 70.8 | 119.1 | 43.5 | 63.2 | 104.7 |
| 15-19 | 590.9 | 506.5 | 1 097.4 | 618.8 | 533.9 | 1 152.7 | 556.1 | 493.6 | 1 049.7 | 533.6 | 475.5 | 1 015.6 |
| 20-24 | 616.6 | 423.0 | 1 039.6 | 824.6 | 554.4 | 1 379.0 | 892.4 | 599.2 | 1 491.6 | 828.5 | 549.0 | 1 373.5 |
| 25-44 | 2 839.9 | 1 523.2 | 4 363.1 | 2 924.8 | 1 557.2 | 4 482.0 | 3 662.3 | 1 655.5 | 4 717.8 | 3 246.8 | 1 788.5 | 5 035.3 |
| 45-54 | 792.3 | 316.7 | 1 019.0 | 838.2 | 397.2 | 1 235.4 | 1 193.1 | 530.8 | 1 723.9 | 1 382.1 | 589.5 | 1 962.7 |
| 55-64 | 664.9 | 231.4 | 896.3 | 621.4 | 231.9 | 853.3 | 507.1 | 207.7 | 714.8 | 604.4 | 258.6 | 263.9 |
| 65 and over | 310.5 | 107.8 | 418.3 | 358.4 | 114.3 | 472.7 | 398.6 | 120.3 | 518.9 | 384.8 | 115.6 | 499.3 |
| Participation rates | | | | | | | | | | | | |
| All ages | 59.8 | 31.8 | 45.5 | 60.6 | 32.7 | 46.5 | 61.3 | 33.2 | 47.1 | 61.5 | 33.1 | 47.2 |
| Less than 15 | 21 | 3.3 | 27 | 1.9 | 2.9 | 2.4 | 1.6 | 2.5 | 2.0 | 1.4 | 2.1 | 1.7 |
| 15-19 | 63.3 | 56.3 | 59.9 | 60.7 | 54.9 | 57.9 | 58.2 | 53.6 | 55.9 | 55.7 | 52.2 | 54.6 |
| 20-24 | 89.7 | 62.0 | 75.9 | 88.9 | 62.0 | 75.7 | 88.1 | 62.0 | 75.4 | 87.3 | 60.0 | 73.9 |
| 25-44 | 97.1 | 49.9 | 73.0 | 97.3 | 51.6 | 74.4 | 97.4 | 53.4 | 75.5 | 97.5 | 55.1 | 76.6 |
| 45-54 | 94.4 | 35.9 | 62.7 | 94.2 | 36.8 | 62.7 | 94.0 | 37.5 | 64.2 | 93.7 | 38.4 | 65.7 |
| 55-64 | 80.1 | 25.3 | 51.3 | 79 | 25.6 | 50.4 | 78.0 | 25.9 | 59.2 | 76.9 | 26.2 | 48.7 |
| 65 and over | 53.8 | 13.4 | 30.3 | 51.5 | 12.4 | 29.2 | 49.0 | 11.5 | 27.9 | 46.7 | 10.6 | 26.2 |

Source: Population projections, 1966-76, *Demografija Srbije*, 1962 (Belgrade, 1964). For 1981, *Statistika*, No. 1, Jan.-Mar. 1963, article by D. Brank.

(The article shows the same estimates 1966-77 as *Demografija Srbije*.)

Labour force and activity rates, *World and Regional Estimates and Projections of Labour Force 1956-2020*, by James N. Ypsilantis, ILO, ISLEPA VIII.

The projections of the labour force are ILO provisional estimates based on the reported sex-age specific participation rates observed in the census of 1961 for Yugoslavia and the sex-age specific trends in the ILO projections for the regions of southern Europe and eastern Europe.

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